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OF THE

UNITED STATES

VOLUME XLIII.



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BRIG.-GEN. T. F. RODENBOUGH, U. S. A., EDITOR.

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JOURNAL

OF

THE MILITARY SERVICE INSTITUTION

OF THE

UNITED STATES.

"I cannot help plead to my countrymen, at every opportunity, to cherish all that is manly and noble in the military profession, because Peace is enervating and no man is wise enough to foretell when soldiers may be in demand again."—GENERAL SHERMAN.

Vol. XLIII.

JULY-AUGUST, 1908.

No. CLIV.

Silver Medal Prize Essay.

THE MILITARY NECESSITIES OF THE UNITED STATES AND THE BEST PROVISIONS FOR MEETING THEM.

BY MAJOR WILMOT E. ELLIS, COAST ARTILLERY CORPS.



ALTHOUGH among the foremost of naval powers, the United States is the weakest of all in available military strength. In the event of war with a first-class power, we should be liable, as a result of our military unpreparedness, to crushing blows and possible defeat within our own territory.

It is my purpose in this essay to discuss our military necessities in their relation to what may be termed a "first-class war" for, if fairly well prepared for a struggle of that nature, it would be a simple matter to deal with a minor war. As preliminary, I shall first

outline—

I. THE PROBABLE PROGRESS OF THE OPERATIONS INVOLVED IN A FIRST-CLASS WAR.

Logically, the first period would be devoted mainly to a struggle for naval supremacy. Until this question was decided there could be no military contact on a large scale in the home territory of either combatant. If, when the war opened, the preparations for the defense of our seacoast should be as defective as they are to-day, the navy would be hampered by the

exigencies of home defense, and the enemy could easily seize one or more of our possessions. He probably would also take the initiative in naval raids, since he could concentrate effectively at home upon a limited coast line, whereas the reverse conditions would obtain with us. While a raid rarely leads to decisive results, one or more such demonstrations would seriously damage our prestige, and kindle that most fatal of all fires in the rear—a “peace-at-any-price” party.

It is by no means impossible, however, that in certain circumstances a raid might bring disastrous consequences. It may be assumed that the largest number of men that can be disembarked from a flying squadron is about 5000. Such a force landed near the defenses of one of our harbors might be powerful enough to brush aside the untrained defenders and capture one or more forts by assault in the rear. Having demolished the guns and accessories of the artillery defense, the raiders would probably attempt to withdraw to their ships, posted near but out of the field of fire of the guns of the forts. The risk of sacrificing the landed force would have no weight if there were a reasonable chance of inflicting the damage contemplated by the raid. Should such an attack be made where we were especially vulnerable, it would clear the way for occupation of the harbor by a hostile fleet, and for the establishment of a base for subsequent military operations.

The close of the first period would reveal a situation something like this: the shattered remnants of the fleets of the Power defeated in the struggle for naval supremacy would have been driven from the sea to the shelter of its fortified harbors, or interned in neutral ports; and affairs would be *in statu quo*, so far as military operations in outlying possessions were concerned.

It is possible that hostilities might end at this stage. Both the Spanish-American and the Russo-Japanese Wars were terminated after naval supremacy had been won, and without any combats at all in home territory, military operations being limited to intermediate territory of strategical value to each combatant. It may be set down as certain that at this juncture (and possibly before) great pressure from within and without would be exerted to bring about peace. The strongest factors operating to this end are the probable formation of peace parties in the respective countries, the financial exhaustion of the combatants and the mediation of neutrals. Such mediation permitted, and in fact encouraged by The Hague Conference of 1899, might readily

take a sinister turn, because of the damages to neutral trade incident to the war, a realignment of the Powers based upon sympathy with one or the other of the warring nations, and upon considerations affecting the world's balance of power—or, because of a combination of all these causes.

If the struggle passed into the second period, the dominant Power would be forced to seal up the enemy's remaining ships in port, to recapture such valuable possessions as had been lost during the first period, and to establish and maintain a transmarine line of communication to the enemy's home coast. An attempt to blockade the coasts and ports of the nation defeated at sea would probably follow, supplemented by efforts to establish a base or bases on the same coast, for the purpose of landing a strong invading army. This would carry us into the domain of field and siege operations, which necessarily would be conducted upon an immense scale, and would lead to conclusive results.

II. THE THREE LINES OF NATIONAL DEFENSE.

The navy constitutes our first line, defensive, offensive and offensive-defensive, and it must be perfectly free to take the sea or to fall back upon fortified ports, as considerations of strategy and tactics may require. This line should never be weakened by holding back ships from sea-going squadrons in order to assist in the defense of a coast, whose inhabitants are alarmed for their safety, as was done in the United States during the Spanish-American War.

The second line of defense would consist of that part of our land forces which was posted near the seacoast, and such naval elements as might be available for harbor and coast defense. This line should be so disposed and of such strength as to insure the security of the whole coast, and to allow the first line absolute freedom of maneuver. The military portion of the second line comprises two kinds of troops, whose duties are essentially different in nature—the immobile and the mobile forces.

The coast-artillery constitutes the immobile personnel, and is charged with the double duty of serving the fixed armament and the submarine mines.

The mobile forces are divided into coast-artillery supports and the coast-guard. The former class is made up principally of infantry and of detachments assigned to the service of machine

guns or field pieces. Each fort is provided with its own supports, organized into tactical units not higher than a regiment, under the fort commander. The supports are specially charged with the duty of repelling attacks or raids of small parties landing near the fort, and directed against the immediate rear or flanks of the batteries, or their accessories.

The coast-guard includes all the elements that make up a field-army (irrespective, however, of field-army proportions), with the personnel necessary to man the siege guns required by the various local schemes of defense. The duties of the coast-guard comprise the service of security and information for the whole sea-coast, and the repelling of any land attacks of moderate strength—that is, by a force not exceeding some 5000 men. The guard should be distributed so as to observe the whole coast line, being somewhat concentrated near unfortified harbors and practicable landing places, and heavily massed in the vicinity of fortified harbors. The principle governing the disposition of the coast-guard is to prevent a hostile landing party from striking any of the vital points of a fortified harbor, without encountering an equal or superior force of the guard. In case the enemy has a preponderance of naval strength and invasions in force are to be feared, the functions of the coast-guard become those of a screen or outpost for the third line of field-armies.

If naval superiority were gained by the United States, the élite troops of the second line would be available for overseas service, and the depletion thus caused in the second line could be filled by drafts from the third line. The new troops designated for coastal service could then be trained in second line duties, so that they, too, would become subsequently available for overseas service. Thus, both training and service could proceed upon systematic lines.

Our third line of defense would consist of one or more field-armies, each army being concentrated at some strategical center near the seaboard, and held for action as might be necessitated by the progress of the war. The duties of the third line would include the reinforcement of the second line when necessary, as well as the field and siege operations involved in repelling an invasion in force.

The conclusions reached as regards our needs for national defense, briefly summarized, are:

- (1) A strong navy for the first line.
- (2) A second line consisting of specially trained troops mo-

bilized on the seacoast, as soon as hostilities become imminent—primarily for purely defensive operations, but the élite elements to be available for oversea expeditions, should such be contemplated.

(3) A third line, including one or more field-armies, intended to operate in home territory in opposing any invasion in force and to serve as a feeder for the second line. The third line should bear the full brunt of our lack of military preparations; and when hostilities threaten, only sufficient regular troops should be retained with this line to leaven the masses of untrained men called into service.

III. THE STRENGTH OF THE PERSONNEL FOR THE SECOND LINE.

The number of enlisted men required for one shift for all the mines, search-lights, power plants and guns for the coast defenses of the United States (including the additional armament recommended by the Coast Defense Board of 1906), is, in round numbers, 48,000. (Report of the Chief of Artillery, U. S. Army, 1907.)

In Circular No. 17, War Department, 1907, is given the number of infantry units required as artillery supports for the various forts, the total being $19\frac{1}{6}$ regiments. General Order No. 146, War Department, 1907, prescribes 1592 as the enlisted strength of a regiment. Using this as a basis for calculation, the number of artillery supports required is about 31,000 men.

There are no official publications to guide us in figuring the strength of the coast-guard, although it is understood that the matter has been taken in hand. We can make a rough estimate, however, as follows: The National Coast Defense Board submits a list of twenty-seven home ports and harbors requiring defenses. Assuming that a raid in force will not exceed 3000 men (a conservative estimate), the same number of troops will be required on each side of a harbor to repel such an attack, and hence 162,000 men will be needed for concentration near port entrances. Add to this 1000 men between every two harbors, and between each frontier harbor and adjoining alien territory—for the general purposes of patrol and observation, and for guarding practicable landing places, we have 29,000 more men.

RECAPITULATING:

Coast-Artillery	48,000
Artillery Supports.....	31,000
Coast-guard	191,000
Total for second line.....	<u>270,000</u>

IV. THE STRENGTH OF THE THIRD LINE.

There are two methods of estimating the strength of this line, both leading to approximately the same figures.

We should be able, during the progress of a war, to place as many men under arms as a first-class power can muster for its field-armies when on a war footing. This number varies considerably, but a conservative estimate is a million and a quarter. Thus, the Japanese armies, if mobilized for war in the latter part of 1906 would have contained about 1,150,000 effectives, and it is believed that this number can be considerably increased as a result of measures adopted during the past year. Deducting the strength of our second line from the above estimate, we have an approximate total of about 1,000,000 men.

For protection against invasion in force, strategic considerations appear to call for five field-armies for the protection of each coast, as follows: the North Atlantic, the South Atlantic, the Gulf and the Pacific; the fifth army organized in the central section of the country serving as a reserve. While there is no historical precedent to help us in the matter of estimating the number of men that could be transported across an ocean and landed on the home territory of a hostile power with a fortified coast, it would be safe to take 200,000 as the average strength of a field-army; the actual size of each army, however, depending upon the geographical position and military strength of the enemy. Without naming any particular Power, it is well known that nearly every one of the great maritime nations can furnish transport facilities for an army of the size specified. Accepting 200,000 as the unit of army strength, we arrive at the same number of men for the third line—1,000,000.

V. TERRITORIAL WAR ORGANIZATION.

The above caption indicates one of our most urgent military necessities. The partition of a country into military divisions or departments with a view to assigning to each fraction certain

specific duties in time of war, and the separation of field-army units from fortress troops are policies that have been adopted by practically all military nations except the United States. A scheme of this nature permits a nation to pass from a status of peace to that of war with a minimum of stress. This is true no matter how small the standing army or what the system of expansion to a war footing may be. As soon as orders for mobilization have been received, the territorial commander of mobile units calls out the regulars, reserves, volunteers or militia, stationed or resident in his command, and takes the field with his troops organized as a brigade, division, corps or army, as the case may be. The territorial department and its posts can then be administered and cared for by retired officers and men, and recruiting for the units in the field can be carried on by the methods in vogue before mobilization.

Similarly, the territorial commander of fortress troops (or, as designated in this essay, the "Second Line") calls the regulars and the reserves to their allotted stations on the coast, the only distinction in principle being that involved in considerations of mobility.

Our military departments are wholly geographical in nature. If the number, kind or relative strength of the troops in any one of them bears a definite relation to war duties, such coincidence is accidental. The only semblance of a territorial war organization in our country is the coast-artillery district. Even here it is a form rather than a reality, for the district commander has about one-half of his armament out of commission without any reserves regularly allotted to it, and he has no artillery supports to defend his forts, except such as may be furnished on request of the War Department by the governor of a State during "Joint Exercises."

The territorial war organization secures so distinct a gain in efficiency, preparedness and adaptability to systematic training that only the best of reasons should lead us to forego the advantages of such a scheme. Let us see whether in the light of principles propounded such a plan is not feasible for our country.

In the first place it will be necessary to delimit geographically the second from the third line. This can be done by assigning all of the seacoast, including harbors, to the second line. The inshore limits would have to be defined for some arbitrary distance—say twenty miles—and special boundaries would be required in the case of forts situated on a river or inner bay.

We may designate the area thus defined as the "coast territory." All the rest of the United States classed as "interior territory" would be assigned to the third line.

For reasons analogous to those governing the subdivision of a mobile army into semi-independent units, the second line should be organized into departments, each comprising two or more artillery districts and the adjoining coast-guards. The Coast Department nearest a land frontier would include the coast-guard to the boundary line; and the limits between each department and its neighbor could be fixed by War Department orders. The largest tactical unit in a Coast Department naturally would be a brigade, consisting of the troops concentrated at one side of a harbor entrance, although it is understood that the composition of any brigade must be wholly dependent upon the needs of local defense, and would bear no necessary relation to the brigade organization of a mobile army.

The following scheme of subdividing out coast territory into departments is well suited to the configuration of the seacoast, and is in conformity, it is believed, to strategical considerations.

No. of Department.	Suggested Departmental Name.	Artillery Districts Included.
1	New England...	Portland, Portsmouth, Boston, Narragansett, New London.
2	New York.....	Eastern New York, Southern New York.
3	Southern.....	Delaware, Baltimore, Potomac, Chesapeake, Cape Fear River, Charleston, Savannah.
4	Gulf.....	Key West, Tampa, Pensacola, Mobile, New Orleans, Galveston.
5	Pacific.....	San Diego, San Francisco, Columbia, Puget Sound.

One of our best authorities, Mr. Gannett, geographer of the census of 1880, has proposed the following five subdivisions of United States territory: North Atlantic, South Atlantic, Northern Central, Southern Central and Western. (Reference for States in each subdivision; see *Encyclopedia Britannica*, article "United States.") As these groupings of States accord with the distribution of the proposed five armies for the third line, it would be a sound organization to have the military departments of this line conform to these geographical sections and to name each accordingly.

Comparing the functions of a department commander of the

second line with those of one of the third line, it should be noted that in time of peace both would be charged with the duties of administration and command, but neither officer would ordinarily exercise a direct tactical command. During war, however, or when mobilized, while the interior department commander would have direct tactical command of his personnel, no such command would be practicable for the Coast Department commander, because of the comparative immobility of his troops and the length of his line of defense. The coast-guard should be organized into semi-independent sections, each consisting of a brigade or smaller tactical unit.

Briefly reviewing the subject of territorial war organization, we note that our country can be conveniently divided into ten departments, five coast and five interior, and that both the coast and the interior subdivisions are based upon geographical as well as strategical considerations. It will be shown later how well this classification is adapted to a convenient rotation of service in the regular establishment, and to the two forms of training, field and coastal.

VI. THE RELATIVE STRENGTH OF THE VARIOUS ARMS IN THE TWO LINES.

As we have already seen, the strength of the coast-artillery and of the artillery supports has been definitely determined. So far as the latter is concerned, it remains to be decided whether the personnel assigned to field-guns shall be field-artillery or infantry. I think it the better plan to assign the infantry to these, as the guns will be practically immobilized and selected detachments could be readily trained to serve them efficiently.

In estimating the strength of the coast-guard, there was no attempt to figure anything beyond the total number of men required. To determine the relative strength of the different arms, a detailed study of the defense of each harbor and each section of coast line would be necessary. Summing up the results, we should have a definite knowledge of the number of infantry, cavalry, field-artillery, siege-artillery, signal companies, engineer troops and cyclist companies necessary for the proper defense of our coast line. If such a study has been completed, the figures on the subject have not been published.

All information regarding the strength of the personnel and the amount and location of the armament considered necessary

for the defense of any particular locality are necessarily confidential matters, and should be so guarded at all hazards. It is not understood, however, why there is any objection to publishing at the proper time the totals for personnel as well as matériel. Corresponding information, in fact data of much more detailed nature as regards the coast-artillery and artillery supports, have been made public. In the absence of information of the character referred to, it is impossible to give the study of our military necessities the definite trend it might otherwise take; and military writers are not at present in a situation to present to the public our urgent needs in the way of national defense.

The strength and the organization of the troops that would constitute the third line are given in General Order 146, War Department, 1907. If we should add a siege-train to each of the five armies composing this line, it would be easy to make the calculations for the personnel and matériel required. While there is little or no prospect at present for training in time of peace any more than a small fraction of the number of men needed for the third line, simplest prudence demands that we should arrange to accumulate as rapidly as possible the reserves of war material needed for armies aggregating 1,000,000 men.

VII. THE NECESSITY OF PREPAREDNESS IN THE SECOND LINE.

It is a principle universally accepted that the first line, consisting of the navy, shall be kept at all times practically on a war footing, ready to go into battle almost at a moment's notice, yet such readiness by the second line is almost, if not fully, as essential, though overlooked by many military men. The public does not appear to suspect the danger that menaces the country, because of the lamentable weakness of this line. We can count upon weeks, months, perhaps a year in which to mobilize and train the troops of the third line, but there is no such grace for the second. The enemy is more likely to deliver his attacks upon the coast line on the eve of or immediately after the outbreak of war than at any other time. Fatal weakness and confusion would follow if, with present conditions, we should be forced to mobilize and post the 270,000 men needed for the defense of our seacoast.

Every first-class maritime nation, except the United States, has made careful provision for the defense of its seacoast. We have made partial preparation for defense against purely naval

attacks; but beyond this, scarcely anything has been done except experimenting with militia companies acting as artillery reserves and supports. Instead of lagging in the rear of other countries in this respect, two powerful reasons, peculiar to ourselves, make preparedness of the utmost importance. We make no provision for constructing land defenses, in time of peace, for our harbors or forts. Consequently, these works will have to be erected during the period of strained relations or immediately after the outbreak of war. Again, even if we had a well-developed system of coastal training, our peace maneuvers would necessarily be limited to lands owned or leased by the Government. As a consequence, during war our mobile troops would be required, in most cases, to operate on a terrain that was unfamiliar to them.

When war threatens we should be ready to send trained units at once, each to its predetermined post on the coast, as smoothly and systematically as a warship "clears for action." Until we can do this we are not prepared for war; and no facts, figures or theories can prove that we are. We are thus brought face to face with a question that transcends all problems relating to promotion or the welfare of the Regular Army; it vitally concerns national honor, and every trained military man should do his utmost to drive the facts home to those of his fellow citizens who have not received the benefits of military training.

VIII. THE PEACE STRENGTH OF THE REGULAR ARMY.

The relative strength of the different branches of the permanent establishment is not now based upon field-army ratios. The policy in the past has been to increase the strength of an arm when its weakness became so manifest as to cause Congressional action, the other arms patiently awaiting their respective times for consideration. If the present ratios are anything like those required by second line organization, the coincidence is merely accidental, for legislation has never been asked on such grounds. Yet no matter what the relative discrepancies may now be, nor on what basis reckoned, it is not conceivable that any arm of the permanent establishment will be reduced in strength for many years to come.

The dominating importance of the second line makes it the governing consideration in formulating any new scheme for regulating the strength of the several arms of the permanent establishment. Here, however, we meet the difficulty already referred

to: the necessary figures as to the strength of the coast-guard are not yet published. There remains, therefore, at least one unknown quantity which cannot at present be eliminated, and our deductions must be somewhat general in nature.

The following outline of a scheme is offered as fairly well suited to our needs:

Staff Departments.—To conform generally to the proposed territorial war organization, the minimum home strength to be not less than twice that required for possessionary service in time of peace.

Engineer troops, signal companies, cavalry and field-artillery.—If twice the strength required for service abroad in time of peace does not meet the requirements for second line duties, such arm should be increased until it does. If the product exceeds coast-guard demands, such product, however, to determine strength, the surplus to be available for third line assignment and duties.

Coast-artillery, siege-artillery, infantry and cyclist troops.—Each to have a minimum home strength of twice the contingent abroad. For home defense an effort should be made to raise a reserve for each arm from the militia of the coast States; and this failing, to organize Federal reserves from communities on or near the coast. If, for any arm, the above product increased by the total strength of both classes of reserves is less than the strength needed for the second line, such deficiency should be made good by a further increase of the Regular Army.

It is not believed that the strength of any arm as now assigned to possessionary service is as great as it would be if the War Department had more men available for such service; consequently definite figures are more or less problematical. In the case of the coast-artillery, however, the necessary data are available and the figures will illustrate the general scheme proposed.

The Chief of Artillery in his Report for 1907, states that 7401 men will be needed for the coast defenses of the insular possessions and of the Panama Canal, when the projects recommended by the National Coast Defense Board shall have been completed. According to the plan I have suggested, we should have a minimum of 14,802 coast artillerymen for home defense. Each governor of a seaboard State should be asked to designate definitely the number of militia companies in his State that will be regularly assigned to coast-artillery work. Call the total strength of such companies designated by the various seacoast States, *m*.

If a deficiency still exists (as it probably will), the Government should strive to raise Federal reserve companies in communities in the immediate neighborhood of coast forts. Represent the total strength of these Federal reserves by r . If a deficiency still exists, represent it by x , and we may write (47,709 being the total number of men required for coast-artillery defense)

$$\begin{aligned} X &= 47,709 - 14,802 - m - r \\ &= 32,907 - m - r \end{aligned}$$

When m and r are once determined, we shall be in the position to ask Congress for the exact increase wanted for the coast-artillery.

The necessary increase for all the other branches of the Regular Army could be determined in the same manner if the necessary data were accessible.

The *raison d'être* of the above scheme is almost self-explanatory, but a few remarks may be added.

A man who gives his unqualified service to the colors should be reasonably sure, in time of peace, of spending two-thirds of it in the "States." The Infantry and the Medical Department now spend nearly one-half of their service abroad. There is something more than sentiment and a consideration for individual rights in the plan proposed. Doubling the strength required abroad would permit each of the mobile branches to divide its service among our possessions, coast departments and interior departments, respectively, and to receive systematic training accordingly.

It will be noted that provision has been made to keep all of our present mobile branches of the second line on a war footing, except the infantry. This exception is made because such a large number of infantry will be required, and the technical nature of the other branches involve a higher degree of training and a greater complexity of equipment. To make an efficient infantryman, the training required is just as thorough as that needed for other branches; but, whereas the infantry soldier requires his individual kit and training only, the other arms must have something beside. Existing militia field-batteries and cavalry troops could be utilized in the coast-guard, but it is not believed to be good policy to encourage the formation of any more such organizations.

The siege-artillery is an orphan at present, as neither the field nor the coast-artillery has adopted it. The furnishing of

siege material for coast-guard purposes and the assignment of a personnel to it call for early attention. As practically all artillery of this class will be immobilized, militia reserves could be utilized for this purpose.

The adaptability of cyclist troops to coast-guard work is receiving considerable attention in Europe. Organizations of this kind would be peculiarly useful in certain sections of our seacoast, and the service would undoubtedly prove popular with militia and reserves.

IX. TERRITORIAL WAR TRAINING.

If our military departments were classified as interior and coast, practical instruction would naturally follow the two lines of field and of coastal training. General Order No. 177, War Department, 1907, provides thoroughly for "garrison" and for "field" training, but no provision is made in the order for coastal work.

Coastal training may be defined as the drill and instruction of the several branches of the army in the operations connected with the attack and defense of objectives on the seacoast, and the debarkations, landings and embarkations incident thereto. This form of instruction assumes the co-operation of the army and navy, both branches being represented in the attack as well as in the defense. These combined operations have received various designations, both in the United States and abroad, our latest title being "Army and Navy Joint Exercises." We have never had in this country any maneuvers of the kind referred to, but every other first-class maritime nation is paying special attention to such training. To comprehend in some degree the immensity of this field and the importance attached to it abroad, the student is referred to essays on the subject: "The Best Method for Carrying Out the Conjoint Practice of the Army and Navy," etc., in *The Journal of the Royal United Service Institution*, April and May, 1905, and an article on the "Landing Operations at Essex Maneuvers" (1904) in *The Royal Engineers' Journal*, Vol. 2, 1905. Our own literature on this subject is almost as limited as our experience.

To show what has been done and what remains to be done in coastal training, let us review the coast exercises we have had in the last few years. New London, 1902: navy versus the coast-artillery, militia acting as artillery supports, and some regular

engineer troops on special work. Portland, 1903: navy versus coast-artillery and militia acting as artillery supports. 1904: no exercises. Chesapeake, 1905: navy versus coast-artillery. 1906: no exercises. 1907, exercises in each artillery district: coast-artillery and militia consisting of "artillery reserves" and artillery supports against a naval force simulated by quartermaster boats.

Summing up these exercises, we note:

(1) No training in the organization and the duties of a coast-guard has been attempted.

(2) No regular infantry, cavalry or field-artillery has participated.

(3) No practice has been undertaken in the matter of disembarking and landing troops in any considerable number, or troops with impedimenta, and the dispositions necessary to defeat such landings.

(4) No naval boats or personnel have been detailed to cooperate with the land defense. The whole naval contingent has always attacked.

Maneuvers on a larger or more instructive basis are hardly practicable, so long as we cling to the idea that the only proper stations for our mobile elements are at interior posts. There are but few posts on the seacoast where infantry, cavalry or field-artillery troops are stationed; and even in these rare cases the personnel appears to have the same training as their comrades in the interior. No engineer troops are on the coast, and I believe the duties of the members of the signal corps so located are limited to the work of fire control installation.

It would seem wise to station about half of our mobile troops on the seaboard, where they would be immediately available in time of war. This plan would also permit us to conduct joint exercises on a scale so large as to lead to beneficial results. The other half of the mobile troops at interior posts (except such surplus as could be spared as a nucleus for the third line) would receive field-training in time of peace, and could be mobilized on the coast when foreign relations became strained. It will now be seen how this plan accords with the one formulated for increasing the strength of our permanent establishment, and how mobile troops could rotate in the stations involving field training, coastal training and possessionary service, respectively.

The scheme here outlined would necessitate the establishment of a considerable number of posts on the seaboard, but this

does not mean that any of the interior posts must be abandoned. The increase of our permanent establishment, which is becoming a matter of absolute necessity, will not only demand the use of all posts now available, but it will require the construction of new ones. Why should not these new locations be selected on the seaboard, where the personnel will be most needed in time of war?

Another factor favors, in a most timely manner, the stationing of mobile troops on the coast. The War Department has announced the policy of concentrating the coast-artillery companies in each district in one or more large "district posts." This plan will release a large number of quarters for the occupation of infantry, engineer troops and signal companies. Some of these mobile troops might advantageously be stationed at the concentration posts themselves. All experience has shown that garrisoning troops of different branches together causes a healthy emulation, highly conducive to good training and discipline. The breach between the coast-artillery and the other arms of the Regular Army has noticeably widened in the last few years, whereas every consideration of military efficiency forbids any breach at all. The coast-artillery is becoming more and more dependent upon its fire-control installations and heavy guns, and the mobile troops upon their outposts and practice marches. Conjoint service, besides broadening all concerned, would probably militate in favor of the versatility which always has been and always will be demanded of the American soldier.

A sprinkling of regular infantry with the militia used as supports during coastal exercises would unquestionably tone up the militia. The need of such service was shown at the "Joint Army and Militia Coast Defense Exercises" of last year. The artillery reserves encamped with the regular coast artillerymen responded much more promptly to the demands of military courtesy and discipline than the supports encamped by themselves. This fact was commented upon by militia officers as well as by regular officers.

Coastal training cannot be put on a satisfactory basis until the Government purchases or leases several large seaboard tracts of land, to be used as camps and maneuver grounds by the coast-guard and forces representing third line troops. These areas would differ both as regards location and extent from those occupied in time of war; for even if considerations of private ownership did not interfere, it would be bad policy to disclose our

war stations. It should be noted that, while maneuver tracts on the seacoast may be utilized for both field and coastal training, interior camps are impossible for coastal training.

There are so many untried features and possible variations connected with joint exercises that anything like systematic treatment is exceedingly difficult. In view of the limitations, both as to space and experience, nothing further will be attempted than the suggestion of a "situation."

Relations between "Enemy," represented by the Coast Department of New England, and the United States, represented by the Coast Department of New York, become strained on January 1st. On January 5th, "U. S." sends ultimatum to enemy, requiring reply within twenty-four hours, and demands are not granted. "Enemy's" nearest port is five days' steaming distance from New York. Long Island Sound and its shores are neutral territory. Coast-guard occupies three strips of coast, two on the southern shore of Long Island and one on the New Jersey coast. All other coast territory is "dead," except coast forts of southern artillery district of New York. Three submarines, six protected cruisers and three torpedo boats constitute the whole available naval strength of the "U. S." "Enemy's" force, consisting of four armored cruisers and four torpedo boat destroyers, convoying transports with 3000 troops on board, departs for "U. S." on January 5th. No orders for war exercises, either military or naval, to be issued before January 1st.

An exercise such as the above, besides affording an excellent opportunity for coastal training and for testing our mobilization machinery, would stir popular interest and enthusiasm in military and naval matters. Incidentally some valuable experience in the way of press censorship would be acquired.

As stated in another place in this essay, we have had no practice in coastal training for mobile troops in late years. In fact, there has been nothing of the kind since the landing made on the Cuban coast in the Santiago campaign. If we have not taken to heart the lesson there taught, let us hear what a competent foreign critic has to say on the subject. I quote:

"The whole campaign (referring to the war between Russia and Japan), therefore, has been a splendid example of the triumph in combined naval and military operations of method and peace organization over illimitable resources."

* * * "If any man is inclined to doubt the correctness of the inferences drawn, let him carefully study the details of the

Japanese disembarkation at Chemulpo in February, 1904, and compare its features, one by one, with the similar operation which was carried through by the forces of the United States at Daiquiri in June, 1898. The former episode * * * is an example of a descent executed with admirable precision within a few days of the outbreak of hostilities, and, consequently, too soon for it to have been possible for any lessons learned during the existing war to have been applied. The disembarkation at Chemulpo, therefore, was a product of peace preparation, and of peace preparation alone."

"To fully realize the tremendous influence which national foresight may exercise as compared with numbers and wealth, it should be borne in mind that the forces employed at Daiquiri were engaged in executing the mandate of a great State, whose resources exceed those of Japan by many millions, alike in population and in money. Yet, as we have seen, while the most essential appliances, such as horse-boats, were denied to the brave men of the United States' forces at Daiquiri; at Chemulpo, in spite of the comparative slenderness of the national resources, every detail down to sign-boards for the Japanese troop-boats and landing stages, and rice mats for the horses' feet, were at hand and constantly available."*

X. HOW SHALL WE SECURE THE TRAINED MILITARY PERSONNEL REQUIRED FOR THE FIRST PERIOD OF A FIRST-CLASS WAR?

It has been shown that at the outbreak of war with a first-class power we should need about 270,000 men for the second line. Present conditions make it impracticable, in time of peace, to organize the number required for the third line, but a trained nucleus should be provided. The maximum leavening power of seasoned troops may be taken as tenfold; consequently, about 100,000 men should be immediately available for the third line, making a total of 370,000 for both lines. A Regular Army of this strength is out of the question, but the men must be obtained in some way. How?

Approximately 35,000 regulars (including coast-artillery) are required for possessionary service, with a minimum of 70,000

*From *The Journal of the Royal United Service Institution*, April, 1905. Gold medal prize essay, entitled: "The Best Method for Carrying Out the Conjoint Practice of the Navy and Army in Embarkation and Disembarkation for War, Illustrated by the Experience of the Past," by Lieut.-Col. C. E. D. Telfer-Smollett.

for home service. With war imminent, the former contingent could not well be reinforced from the United States, while the home force might be expanded, perhaps, to 100,000, by the enlisted men who had had previous service. Past experience shows that only a small percentage of discharged soldiers return to the regular service in time of war.

The latest figures give 105,213 as the total strength of the organized militia. Of these, 100,000 men at the most would be available for Federal service. We could, therefore, count upon 200,000 regulars and militia, which would leave a deficiency of 170,000 men in the second and third lines combined.

Thus far the plan of establishing a Federal reserve has not met with favor. Our first recourse, then, would be to increase the organized militia. Very few militia organizations have at present 50 per cent. of war strength. The attempt to form new organizations while this depletion exists would be short-sighted in the extreme. The militia, however, could be doubled in strength if sufficient interest in that service could be aroused, by providing a reserve for each company; so that the "actives" and "reserves" combined would give war strength. Accepting the most favorable view of militia strength, 70,000 men would still be required for home service. This deficiency could be made good either by a further increase of the Regular Army or by the formation of reserves.

Federal reserves might be organized either as separate tactical units, constituting "auxiliaries," or as "reserves" proper for each existing unit. The latter plan is the more practicable and economical in case of regimental organization, although, as will be shown later in the case of the coast-artillery, the former is better suited for a corps organization. The best results will be obtained by forming reserves proper on a company, rather than on a battalion or regimental basis.

Limiting the discussion, for the present, to the reserves proper, it is to be noted that the essence of such a scheme is local recruiting, though general recruiting would be necessary to furnish troops for possessionary service and for isolated home stations. Two forms of enlistment and service, therefore, must be recognized and provided for, "home service" and "general."

For home service the period of enlistment in time of peace should be two years with the colors and three years in the company reserve; but in case of war five years' unqualified service could be exacted. If a company were ordered to change station,

a soldier should have the option of passing to the reserve (which would be transferred bodily to the relieving company on its arrival at the home station), or of extending his enlistment to five years' service with his company. In the latter case, the soldier should be paid a bonus for waiving his reserve privileges.

During his service in the reserve, the soldier should be required to make his home within a prescribed distance of his company station, to report once a month for muster and drill, and to attend the annual service exercises with his company for a period of ten days or two weeks. He should receive a monthly compensation of about five dollars in payment for his services, for the upkeep of his uniform and for transportation to and from his post, when Government transportation is not available.

"General service" would appeal particularly to professional soldiers. To encourage this class of enlistment, a special bonus should be offered to those who make no reservations as to their arm of service or location of station. Provision should also be made to give professional soldiers of long and faithful service the preference in appointments to certain public positions of a civil nature.

It will be seen that this reserve scheme makes each company commander a recruiting officer for his own company. The total number of men carried on his rolls, including "actives" and "reserves," should be as nearly as possible that which is prescribed for war strength. The ratio of active to reserve strength could be fixed by War Department orders. Each company would mobilize for war by calling the reserves to the colors.

The organization of militia reserves should follow the same lines as those recommended in the case of the regular service, with such obvious modifications as may be necessary, due to the characteristics of the militia service. For example: the reserve militiamen might be excused from all military duty, except the annual service exercises or encampment.

The coast-artillery constitutes a special case. The total number of enlisted men required for the coast defenses of the country (existing and projected) is 47,709, and the present authorized maximum enlisted strength is 19,321. This deficiency of some 28,000 men could be made good by a further slight increase of the regular corps and by the formation of artillery reserves.

The nature of coast-artillery work is such that the personnel assigned to any particular armament must conform to the manning demands of such armament; otherwise systematic drill and

instruction are impossible. The policy, therefore, has been to attempt to man part of the armament with companies at the necessary strength, the rest of the armament (somewhat more than half) being "out of commission." Consequently a reserve organization for coast-artillery should take the form of "auxiliaries, assigned to defenses not manned by the regulars.

There are some difficulties in the way of utilizing militia for coast-defense work, even if the seaboard States responded enthusiastically enough to furnish the 28,000 men required.

Those States that are willing to maintain a coast-artillery personnel will be required, under the provisions of the militia act of January 21, 1903, to organize such forces as a corps with the regular artillery as a model, except that the highest militia grade will be that of colonel. Under this system, what is to be done with the field-officers of the militia? Shall they be assigned to fire and battle commands in our coast forts? These two commands correspond, respectively, to division and squadron commands afloat, and require as much technical training and experience.

Most militia units are not sufficiently localized for convenient mobilization, even for the purposes for which they were originally organized. To be of any practical use, an auxiliary company should be located in the immediate vicinity of the armament to which it is assigned, so that frequent drills may be had. With militia companies dispersed as at present, training is scarcely feasible more frequently than once a year. Technique in coast-artillery requires constant application, and the personnel of militia organizations changes so rapidly (often 40 per cent. in a year), that no satisfactory results can be expected of continuous instruction for only ten days or so at intervals a year apart. It is idle to delude ourselves on this point. We have had one season's experience in "joint army and militia coast-defense exercises," whereas the English have been experimenting with the problem for years. Their best authorities are unanimous in concluding that the non-regular elements of the coast-artillery forces should be organized in no higher units than companies, that training should be given at frequent intervals for short periods, rather than at long intervals for long periods, and that each reserve company should be recruited in the immediate vicinity of the fort to which assigned. (References: "The Training of Militia Artillery," *Journal Royal United Service In-*

stitution, December, 1906; and "Can Coast-Artillery be Manned by Volunteers?" *United Service Magazine*, June and July, 1905.)

In order to secure good results, coast-artillery "auxiliaries" should be required to attend a stated number of drills each month at the fort to which assigned (night drills interfering least with the civil employments of the members). They should also be required to participate in the annual service exercises. If the several States will devote a portion of their militia to this service, such troops might be utilized by the Government. A State, however, is not likely to enthuse over a proposition to turn over a part of its forces almost exclusively to the Federal Government for work that relates properly to national defense.

In any event, Federal reserves in considerable numbers will be necessary. I believe that, if sufficient inducements were offered, we should experience no special difficulty in securing the services of the needed officers and men. Why not then first apply the Federal reserve scheme to the coast-artillery, where it is most needed, making the service so attractive that the public would approve it instead of remaining indifferent, as at present?

The scheme for military organization proposed in this paper is a compromise between our present lack of provision for a system of military expansion, and the thorough preparedness of the great Continental powers. While a plan has been suggested for establishing the minimum required for a "national army," room has been left for raising the million men, more or less, necessary for prosecuting a first-class war, by the time-honored method of enlisting untrained citizens as "volunteers."

Can we count upon popular support in an effort to organize a national army of 370,000 men? The immediate prospect is not encouraging. Military service in time of peace is not attractive to the body of American citizens; indeed an antipathy to such service exists, except when a war-cloud looms in the horizon. The military service, therefore, must be made more attractive and public opinion molded. These are such herculean tasks that only a few suggestions are offered.

No plan will appeal to the American people that does not look like a good business proposition. It is believed that the one formulated for a national army of 370,000 men, in this paper, possesses that quality.

Make our military posts and reservations outing, as well as drill, grounds for our citizen soldiery. Exploit service exercises

and target practice (small arms and cannon) as much as possible, since they are the connecting bond between our manly American sports and military training. Relieve the soldier of all labor drudgery. Instruct the enlisted personnel of the army in useful trades, as well as in soldiering (as is done in most progressive European countries), so that parents, especially those of limited means, will be eager to trust their sons to the care of the Government.

Direct the military enthusiasm of our youth into the right channels. In no country in the world does so much military ardor go to waste as in the United States. Our boys seek the military schools, our young men join the militia or the Regular Army; but the vast majority, after a short period, enter the more tempting fields of commercial or professional life, or join the ranks of labor, and the Government knows them no more. These young men should be taught that they may be good civilians and good soldiers at the same time. They should be held by some tie to the colors so that their talents may be utilized.

Throw out from our schools those "histories" which teach that Americans are always victorious, which artfully conceal the appalling results of our military unpreparedness in the past, and fail to impress the truth that military obligation to the Government at all times is a higher and nobler duty than the pursuit of wealth and political honors.

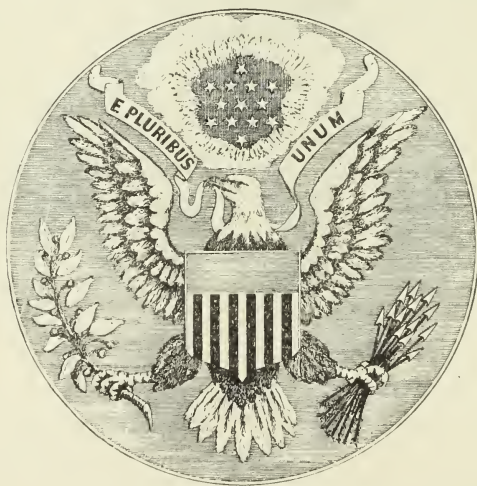
England, the parent of so many of our customs and prejudices, has given us our antipathy to universal military service in any form. She herself, however, has been driven to the last lame expedients for securing a voluntary service army, after twice lowering in recent years her standards of recruiting. Her greatest minds are advocating universal service in terms that admit of no reply. Japan, quick to see the wisdom of such a plan, promptly adopted it, with results that have made the whole world wonder. She did not wait to learn the lesson through bitter humiliation and defeat, as did most of the other great powers. An illustration of the perfect working of such a system in a free country is seen in the Federation of Switzerland, and in the little British colony of Natal.

While it is extremely doubtful that our people will ever be frightened into the safe harbor of universal service, I feel confident that they will, in time, adopt the system because of its moral and physical wholesomeness, and because they will have grown to like it.

In conclusion, let me quote the impressive words from a Philadelphia publication of 1815, used by Commander Hon. Henry N. Shore, R. N., in his article on "Home Defense," in the *United Service Magazine*, July, 1907:

"We have before touched on the common, vulgar and short-sighted error, which causes the people in every free country to repine at the support of those establishments, which must be fostered in time of peace in order to become adequate to the exigencies of war. Those who wait till the danger arrives, before they contribute the means of defense, will find themselves the victims of a miserable, mistaken economy, and fare like the miser who was plundered of his hoards because he would not pay for a lock to his door. * * * It should never be forgot, that for some inscrutable reason, Providence hath permitted wars to wage at various times in every country on the face of the earth, and that no nation can hope to escape them without a special dispensation such as has never yet been granted. Neither remoteness of situation, the most wary prudence, the best-regulated dispensations, the strictest justice, or the most exemplary forbearance, it would seem, can screen a nation from this any more than from any other inevitable consequences of the crimes and follies of human nature."

WILMAR—34.



UNIVERSAL MILITARY SERVICE.

BY BRIGADIER-GENERAL THOMAS M. ANDERSON, U. S. ARMY.



OUR military establishment has not the sympathy and approval of the people because it is not republican and representative in character. In discussing this problem, I take for my text a statement of the New Orleans *Picayune*.

"There is," it asserts, "but one way in which this great republic will be able to maintain a sufficient military strength, viz.: by universal military service."

Our Regular Army is, man for man and gun for gun, the best in the world. Yet in times of national emergency it has to be supplemented by a volunteer organization. Few will claim that this combination has proved satisfactory. There has been a lack of co-ordination in the assimilation of the parts. The combination is cumbersome, lacking in cohesion and needlessly expensive. It needs in some way to be simplified and nationalized. If it be true that all men are endowed with equal rights, does it not follow that they are charged with correlative duties? It is a mere political platitude to say that a citizen must accept duties and responsibilities with protection. If under our representative system we have no privileged class, then our citizens should be liable to all civic and military duties. Certain rights and duties are indivisible. What greater indignity could be offered to a man than to declare him unfit to perform either civil or military duties? Such a man would be considered a moral leper, a political pariah.

It follows from this that a representative government should maintain a sufficient military establishment to meet every emergency by making military service obligatory on all men not physically or morally disqualified. Is a national emergency a condition or a theory? As we are surrounded by a world in arms we seem to be confronted with a condition. To meet this condition, military experts say that we should have an active army of 500,000 men and a second line of 500,000 more. To secure a voluntary force of this number and get a good class of men, we would have to pay civilian wages. Of course, it is idle to theorize on this proposition. We might try a modification of

the Swiss and Swedish systems as more likely to be popular. Their militia service under a permanent staff would not answer for our larger population.

Our safest method for an offensive-defensive is universal military instruction and compulsory short-time service. We have billions of wealth to defend and millions of men to defend it; but untrained millions would be simply an untrained mob.

We are teaching our pupils in the public schools the proper method of using the ballot. We should have also a post-graduate course on bullets. Lord Roberts' proposition to establish free rifle ranges is meeting general approval in the British Empire. We should also make liberal appropriations to establish target ranges over our country not only for military organizations but for citizen clubs. Japan is setting an example we can profitably follow, by having military drills in all schools. This, besides giving a rudimentary knowledge of tactics, gives excellent physical development.

School drills would only be a foundation for future military instruction. No one should be exempt and the quota for service at recurring periods should be determined by lot.

Before discussing methods it would seem advisable to consider the fundamentals of military obligations, Mommsen asserts with emphasis, that the efficiency of the Roman soldier began to decline when the burden of service was placed upon property and not upon the citizen as a personal obligation. Under the stress of foreign wars and the necessity of holding distant dependencies, a large standing army had to be maintained and met by domestic taxation and foreign tribute. From that period the Roman legions were not recruited exclusively from Roman citizens, and the legionaries received pay and bounty, but the bounty was paid not at the beginning of a term of service but at the end. We need not concern ourselves about military organizations before the days of gunpowder, steam and electricity. The question of supreme importance is whether with us the spirit of citizenship is vivid, virile and vital, or epicurean and effeminate. If our dominant stock has become emasculated by luxury, then, like Rome in its decline, we must depend upon mercenaries. Of course, soldiers must be paid whether their service is voluntary or compulsory; but it is all-important that an army should be animated by a patriotic and not a mercenary spirit. If the people of a country prefer to pay bounty or to hire substitutes rather than face the dangers and endure the hard-

ships of war themselves, then they are on the toboggan slide of national degeneracy.

We are said to be surrounded by a world in arms. We can say in the words of the Bastard of Falconbridge: "Let the world come; we'll shock it." That is a noble Fourth of July sentiment, yet we had better be ready to give the shock.

To shoot straight and speak the truth was the Persian summary of education. To shoot straight and obey orders, states the end and aim of army training.

A method of nationalizing our military strength was suggested by one whose wisdom we all acknowledge:

"In 1790, President Washington transmitted to the First Senate of the United States an elaborate scheme prepared by Gen. Henry Knox, then Secretary of War, for the military training of all men over eighteen and under sixty. The youths of eighteen, nineteen and twenty years were to receive their military education in annual camps of discipline to be formed in each State, and a military prerequisite was proposed as a right to vote. This plan failed of adoption, as did also the following recommendation that was urged in the national House of Representatives in 1817 and 1819, 'that a corps of military instructors should be formed to attend to the gymnastic and elementary part of instruction in every school in the United States.'" The full report will be found in Vol. 1, American State papers, p. 6 *et seq.*

This is a brief statement of the scheme proposed by Washington, who was considered by Von Moltke our greatest general. It was formulated by General Knox, our first Secretary of War, and he had been Chief of Artillery of the Continental Army. There is, of course, a wide difference in conditions in the revolutionary period and our own. Then our loose Confederacy had a population of 4,000,000. The people were poor and the Government bankrupt. A large proportion of the population was illiterate, but strong in their prejudices and bigoted in their opinions. One prejudice was almost universal, and that was the prejudice against the standing army. Then there was a belief that any kind of an army was a menace to republican institutions. The people of this country are now too confident in their strength to fear military usurpation, yet many fear, or profess to fear, that a standing army may be used to enforce the laws in the interests of special classes. There is danger that this political pessimism or class prejudice may be carried so far as to leave this

country without adequate resource against foreign invasion or domestic insurrection.

The question is, How organize a military force which will inspire general confidence? Is it not reasonable to assume that an army under such conditions should be drawn from all classes? Under such a system, all men physically fit should be liable to military duty. There are military martinets who hold that an army organized on this basis will be worthless. So it would be unless thoroughly drilled and organized.

If between 1790 and 1908 there had been no change in the character of our population and economic conditions, a small increase of the strength of our regular establishment and a modification of our militia system would have met present requirements. Political economists tell us that the change from clan-ship to citizenship marks the evolution from barbarism to civilization. While there has not been such a transformation in our history, yet there has been a marked change in the relation of our citizens to the Federal Government. In 1790, we were distinctively agricultural. Since then we have passed into a most complex form of civilization. The power of the Government presses upon the citizen at all points. Hence the importance that every citizen should realize that he exists for the State and the State for him. We need consider only the changed conditions as they affect the military problem. Military service is not popular in this country because the pay is small. There is another reason; it is class prejudice. Our labor element is jealous of the privileges of wealth. The labor unions claim that our military forces have been used to uphold these privileges.

It is not the object of this monograph to analyze the causes of discontent or suggest remedies. Its purpose is to present a military problem that will inspire confidence and not hostility. The pendulum of power seems to be swinging toward socialism. If its representatives come into political control, they will both make and enforce the law. Would then the country cease to exist? Even under that condition we would require a military organization—we need not call it an army—to meet foreign invasion and control domestic violence.

The plan elaborated by Knox and approved by Washington is too long to be quoted in full, nor are all its details suited to present conditions, yet general method is practical under any change of policy. Its purpose, as I understand it, is to propose a method by which a large standing army can be dispensed with.

by making every soldier a citizen and every citizen a soldier in time of need.

Field Marshal Lord Roberts has lately illustrated this idea in his statement, that compulsory training should not be confused with compulsory service. But the time may come to any nation when compulsory service will become an absolute necessity.

Our War Department is now under the control of officials of ability and unquestioned integrity. Yet from the Aulic Council, called the General Staff, to the recruiting corporal around the corner, its administration seems ill-adapted to present condition. It has built up a fine superstructure, but its foundations are not broad enough at the base. They do not rest upon the power and sympathy of the people. Our Regular Army is only a spear-head to the spear. Our National Guard is doing excellent service and meets an absolute requirement. Unfortunately, its full strength is only 115,000, officers and men, while the nation needs a million of armed and instructed soldiers. Not a standing army of that strength, but a supplemental reserve force from which any required organized force can be drawn. It would be a nationalized force of citizen soldiers in which the rich and the poor would serve together, side by side. The obligations of service resting on persons, and not on property, class prejudice would be, or should be, eliminated. On the first call to arms with us there is no need of conscription. We have volunteers to spare, and our volunteer soldier is of the best physical and moral fiber. He is an amiable, easy-going man, a bit slouchy, not very good at drill and somewhat restive under discipline. Ordinarily, he is neither warlike nor military. He has too much of the "milk of human kindness" to be a vindictive fighter. But beneath these surface indications the American soldier is brave, earnest and loyal to the core. When a crisis comes and he knows that his country's honor is at stake, he fights as the Normans at Hastings, the Scotch at Bannockburn, the English at Waterloo, and as Federal and Confederate at Gettysburg.

It may be asked if this is the character of the American volunteer, why change the system? In the first place it must be said that the volunteer is untrained, and in the next place that he doesn't always do his best. There is a cool courage that discipline alone inspires. The first lessons in drill should be given our boys in school, and subsequent instruction under some such method as Washington and Knox suggested in 1790. Switzer-

land, Denmark, Norway and Japan are practically following the suggested system.

If, happily, we should never have another war or rebellion, insurrection or mob violence, the proposed military training would at least give each successive generation a physical, mental and moral development. We have, as a people, but little respect for authority or reverence for law. The school of the soldier develops certain corrective habits. The habit of neatness, the habit of truthfulness, the habit of promptness, the habit of self-restraint and of obedience to orders. Without these qualities there can be no efficient co-operative efforts.

The Miltonic Satan addressing his fellows, said: "To be weak is to be miserable." We may not hold this authority in high esteem, yet experience confirms the truth of the saying. Nations may be seemingly prosperous and yet infirm of purpose and lacking in war-like quality. We speak effusively of our country's gallant defenders; but all military authorities agree that there is no safety in defensive warfare. We must be willing and able to carry the war into Africa, so that no rival Carthage can threaten our prosperity and peace. There is a general impression that a conflict between the white and yellow races is inevitable.

If Bishop Berkeley's prediction as to the westward course of empire is destined to fulfillment, we will have to take a leading part in:

"The act which shall close the drama with the day."

Race antagonism is irrepressible, not from difference of color, but in character. Evolution cannot go backward. "Like the current of the Propontis and the Hellespont, it knows no returning ebb." When the inevitable conflict comes, from our position on this continent we will have to bear the brunt. Another Salamis may be fought off the mouth of the Columbia or the decisive Armageddon in the Valley of the Yanksee.

If it be not now, 'tis yet to come.

If it be not to come, it will be now. The readiness is all.



Company A, Signal Corps, in line, ready for field-work.
U. S. Signal School, Fort Leavenworth.

THE ARMY SIGNAL SCHOOL: THE TRAINING SCHOOL OF THE NEW COMBATANT ARM.

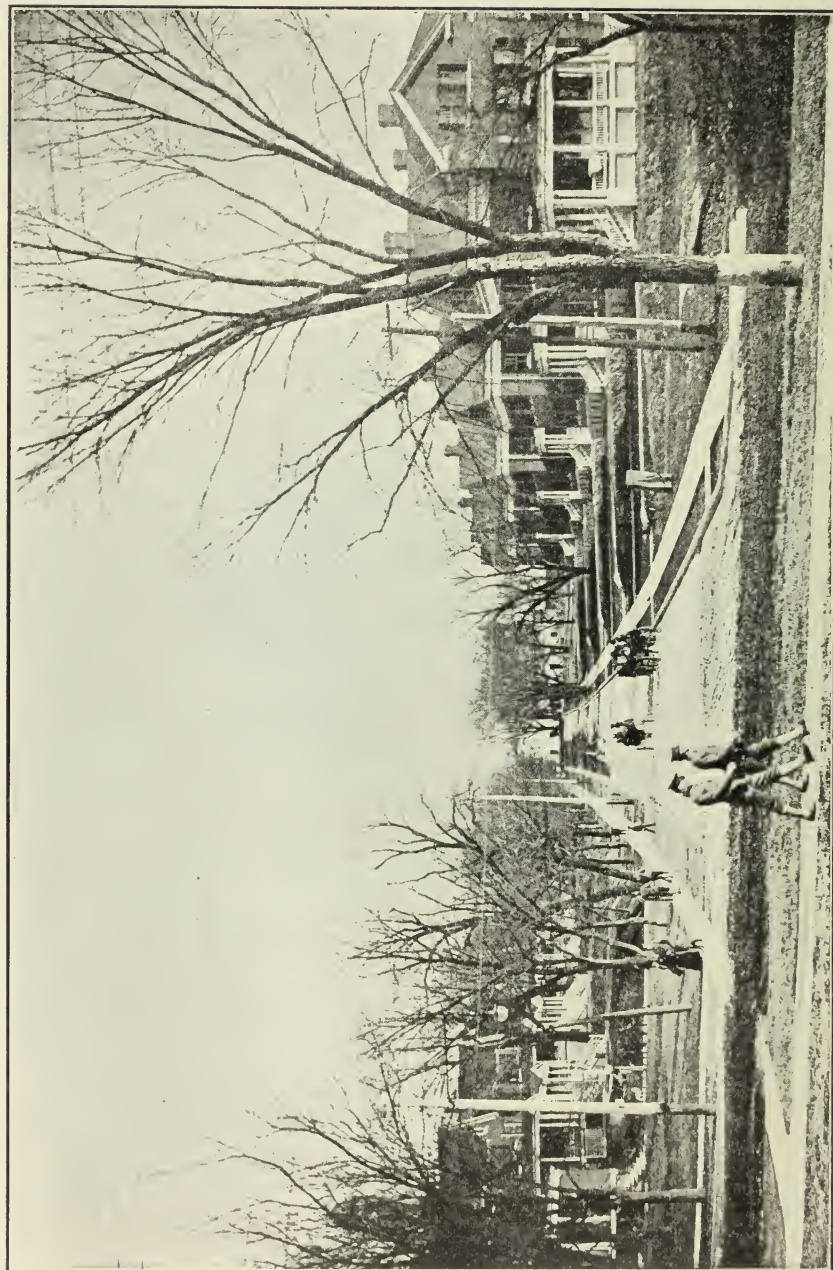
BY CAPTAIN A. C. KNOWLES, THIRTEENTH INFANTRY,
INSTRUCTOR ARMY SIGNAL SCHOOL.



THREE years ago the Army Signal School had no existence. It may truly be said that to the great majority of our army officers, particularly in the infantry and cavalry, the signal corps itself was a vague, if not unknown, quantity. But few of us ever came in contact with its personnel; the scope of its work in time of peace, in domestic disturbances, in times of disaster or in time of war, seldom, if ever, was presented to the public (and I refer here particularly to the army public) in a way which stamped it upon our minds as an invaluable auxiliary arm in a modern army.

Until recent years there seems always to have existed in our own, as well as other armies, an unjust contempt for any soldier who did not actually fight with his own hands. The spectacular is still a prominent relic of barbarism, which sways our imagination and influences our better judgment. The awe-inspiring picture of our war hero dashing madly along the front of his troops, urging them on to victory, is still a vivid recollection. In the recent war the now world-renowned general did no such a thing. We find him sitting quietly in his tent twelve miles behind the firing line, away from the immediate scene of some local action, away from the noise and confusion of battle, where, free from conditions which might urge him to command only a part, he controls the whole.

How infinitely necessary in all future wars of any magnitude will be that auxiliary arm which renders this control of a modern army possible. It is believed that the day is not far distant



MEADE AVENUE.

A section of the residential district, Fort Leavenworth.

when another distinct combatant arm will be added to our service.

The modern battle-field has been frequently compared with chess-board. On the one hand we have presented a picture of a fixed number of pieces, each occupying its proper position, each moving in accordance with prescribed rules, and the strength of each a positive factor. The disposition, the probable intentions of the opposing forces, in brief, the general and special situations on each side are at all times accurately known to the master minds, who, besides, have their respective forces constantly under their absolute control. On the other hand, how confusing the game waged on the battle-field. After the first few moves, doubt and ignorance usually prevail; units moving independently, retreating when they should advance, advancing when they should stand fast, complicate and hamper the most carefully laid plans at every turn. The master mind no longer has absolute control of his pieces, he knows but little of his enemy, and the game resolves itself into blind man's buff. No matter how wisely the plan of action is prepared, the chances of success are few indeed against an enemy of equal strength, pluck, equipment, etc., actuated by a mind in touch with all the parts.

What a contrast between these pictures. The first shows us a perfect system of information, with perfect means of conveying it and perfect control of the movements of the men. The second portrays these lacking or very imperfect.

The importance of perfecting these instruments of battle cannot be exaggerated, and ranking as an instrument of the greatest importance in the "service of transmission" is our new combatant arm, for want of a better name called the signal corps.

Your imagination evolves a mental picture in which you see two men prepared for combat. Both contestants are of equal strength, of equal physical training and of equal scientific knowledge in the art of fighting. You notice, however, that one of the contestants is blindfolded, and standing near him you see an assistant who is endeavoring to communicate to the former the movements and the apparent intentions of his opponent. Can there be any question of the outcome? On the one hand we see a man ready to take advantage of every move on the part of his opponent, and deliver his blows where they will have the most effect. On the other hand the contestant is practically striking in the dark, the information which he receives from his assistant reaching him too late to be of any value. Only by chance or by

an inexcusable mistake on the part of his opponent will he inflict any damage or turn the encounter in his favor.

Is it unreasonable to compare our mental picture with two great armies in battle? Is it not true that our blindfolded commander's chances of success are but slim indeed? Referring again to our mental picture, let the contestants represent the commanders-in-chief of opposing armies and the assistants standing by, the independent cavalry, the commanders of large units, or the commanders of reconnoitering bodies far to the front and flanks, all of whom are endeavoring to communicate to their chief the movements and intentions of the enemy, to appraise him of the *local* situation, to furnish him the *links* which go to make up the *chain of information* upon which he may base his plans and control the *whole* situation. We now have before us an army without a signal corps. We have an army without nerves, without which the control of the whole is impossible.

The cavalry has been frequently referred to as the "eyes and ears" of the army. The cavalry is the assistant who observes and listens, and then makes every effort to communicate his information to his commander, but he is met with difficulties sometimes impossible to surmount. Distance and speed are the obstacles in his way. The means of transmission of thought, the nervous system, is lacking, and the whole is imperfect. It is the new combatant arm which must furnish the nerves. Our contestants are now on equal footing, and other factors determine the best man.

In view of the foregoing, I agree with the English officer who said "there is no salvation for an army, however brave, however well trained to fight, which on the field of battle has to trust to the blind and semi-independent work of isolated units, if it is opposed by the combined force of an equally capable army acting as a whole under the well-informed guidance of its supreme leader."

The signal corps is standing at the threshold of a new era, an era which is full of possibilities and usefulness. It has become a corps highly technical in character, and as its future depends upon those intrusted with the work, its commissioned personnel should be systematically trained in this work. The signal school is a means to this end, its existence being due to the efforts of those who look far into the future.

To date there are but thirteen graduates of this school, all of whom are graduates of the Infantry and Cavalry School. This

year the class is composed of fifteen members; captains, first lieutenants and second lieutenants, the majority of whom are also graduates of the Infantry and Cavalry School (now known as the Army School of the Line). Under the old school regulations, much the largest percentage of the student officers of the Army Signal School were obtained by the method of competitive selection from the graduates of the Infantry and Cavalry School. Under the provisions of General Orders No. 211, War Department, 1907, opportunity is offered to officers who have never attended any of the schools here, to avail themselves of the privi-



THE COLLEGE BUILDINGS, FORT LEAVENWORTH.

lege of the signal course. Paragraph 30, of the above-quoted order, which prescribes the manner of selecting students for the coming year beginning September 1, 1908, is given below:

30. Selection of student officers will be made as follows:

(a) The Chief Signal-Officer of the Army will submit to the Adjutant-General of the Army, not later than January 1st of each year, the names of not less than two, or more than five, officers holding permanent appointments in the Signal-Corps for instruction in the School.

(b) In the same manner, the Chief of Artillery will recommend annually two officers of the rank of captain or lieutenant from the Coast-Artillery Corps.

(c) There will also be detailed such captains or lieutenants of the Regular Army, not exceeding six in number, and such military officers graduated from the latest class of the Army School of the Line, as may desire the course and will have been recommended by the academic board and approved by the commandant.

(d) There may also be detailed such officers of the rank of lieutenant from the field-artillery, cavalry or infantry as may make application to the Adjutant-General of the Army, and who are recommended by the academic board of the Signal School and approved by the commandant, also such militia officers of State Signal-Corps organizations as may apply for entrance, subject to the provisions of paragraphs 5 to 17, inclusive, excepting paragraph 9 of this order.

(e) The foregoing details will be announced in orders from the War Department.

An examination of this order will show the course of study pursued during the school year, and gives a general idea of the subjects embraced in the curriculum.

"The signal service especially needs creative and constructive students of the practical sort, who, while being able to retain a thoroughly disciplined attitude at all times toward the opinions of superiors, will nevertheless push forward into new lines of development, which alone can insure keeping progress with the armies of other nations. The two objects kept in view in forming the curriculum of the Army Signal School have been the following: (1) To prepare each student officer for the active and technical duties required in case of declaration of war immediately; (2) to investigate and co-ordinate the whole subject of lines of information by thoroughly practical methods, with a view of realizing better and more efficient tactical and strategical methods of operating armies in the campaign."*

While the designation of the school would be indicative of a school intended for the instruction and preparation of officers of the signal corps for the better performance of the active duties of their profession, its object is also to provide instruction for officers of the line who are chosen to enter the school.

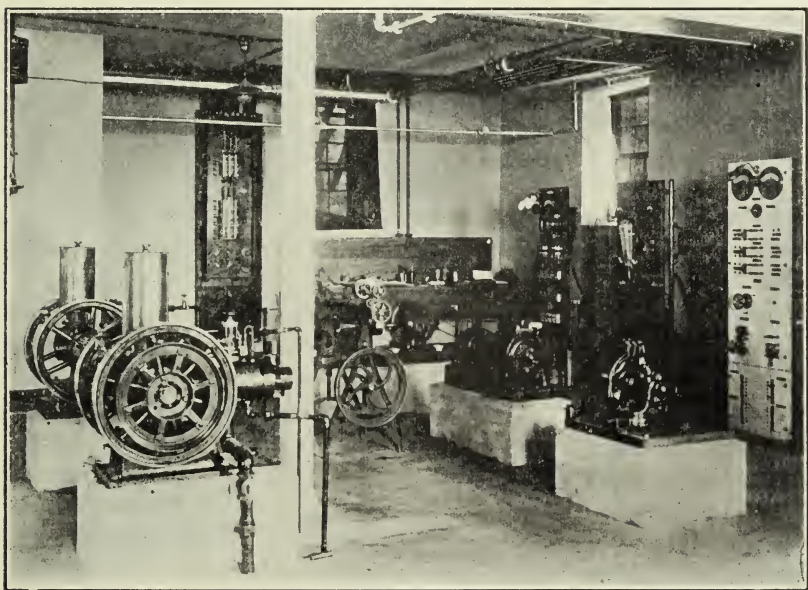
The value of the course to any officer who may be fortunate enough to secure the detail is to me pronounced in character, even though they never willingly elect to become members of, or temporarily attached to, the corps. I wish to forestall the possible charge of rhapsodizing, and if I appear to be overenthusiastic in comment, it should be borne in mind that my comparison is in the nature of "before and after."

A brief description of the practical nature of the work in the laboratory department is so well illustrated by the present assistant commandant, Army Signal School, in his annual report for the school year ended June 30, 1907, that I quote it below:

"On entering the laboratory the student officer is given a printed sheet outlining his work for the afternoon, which work usually illustrated some principle or law studied theoretically in

*Extract from annual report of the Assistant Commandant Signal School, 1907.

the forenoon. The student officer, after a study of the instructions and explanations on his problem sheet, consultation with his instructor and a reference to the technical library of the school, is issued the necessary apparatus and appliances, and performs the required experiments at his workbench. During the laboratory course the student officers are required to dismantle, "take to pieces" and reassemble telephones, buzzers, dynamos, switchboards, oil engines, transformers, telegraph instruments and many other pieces of apparatus, with a view of assuring a thorough practical knowledge of the implements used by the signal



DYNAMO AND MOTOR SECTION, ELECTRICAL LABORATORY, ARMY SIGNAL SCHOOL.

corps. Investigation and comment is encouraged, and valuable original suggestions as to improvements have been received from student officers."

The creative and constructive student referred to in the report of Assistant Commandant, Signal School, 1907, is here afforded every opportunity and encouragement in the matter of original thought and research. The school is now equipped with the finest laboratory in the service. A company of trained men is at its disposal whenever required in the experiments and problems in the field. The student is offered a strong stimulus to form his own opinion on military subjects, and a respect for the opinions of others.

SMALL ARMS AMMUNITION SUPPLY.

BY FIRST LIEUTENANT R. E. BEEBE, FOURTEENTH INFANTRY.



I N considering this subject, it should be borne in mind that the problem is one of weight to be carried, and the manner of carrying it.

Ammunition is a concentrated force. Most all of the operations of war are directed with a view of bringing about the correct application of this force against the enemy at the proper place, and yet when troops have arrived at the place to use ammunition, it has not always been at hand. Cox crossed the Burnside Bridge at Antietam and waited for ammunition. Bazaine's right fell back at St. Privat because it had fired away its ninety rounds per man. Napoleon said: "Fire is everything, the rest is of small account." But, in comparison with rations and shoes, it is seldom that the soldier is actually using ammunition. So there is danger that, when an army is struggling with the terrors of bad transport lines, the coming need for ammunition will be overlooked. Beware! this must never happen, for, when the time comes for ammunition to be used, if the supply is not prompt and sufficient, the toil and expenditure of months will fail to accomplish their object. When the necessity for ammunition arrives, it is immediate and overwhelming, and overshadows all other needs.

The preparation of a supply for a large army, and its continuance during a war, is for the Ordnance Department to arrange. The line-officer is concerned with the immediate supply in the field, and the equipment for carrying it. The Royal Commission on the war in South Africa states that about 66,000,000 rounds were expended by the English, or, approximately, 350 rounds per man. This latter figure is less than the amount the enlisted man of the United States Army is allowed for target-practice each year. Yet Colonel Mayne informs us that troops in that war provided with 150 to 200 rounds each, in battle, in many cases used them up before long. Hence, the sum total supply is not a worrying problem to the line-officer, but having a sufficiency at every point demands his earnest consideration.

The United States has accepted the division as the supply unit. The division-trains are resupplied from army or general trains, or depots. The division being fundamental, our first concern is to fix the amount of ammunition to be carried by it.

Mayne, writing about 1892, says:

"It is useless to try and base our calculations for the amount of ammunition required to be available for a soldier on his entry into action on the experience of past wars, because the conditions of future wars, in which both opponents will be well trained in fire-tactics, will not be the same as in the past. Besides, it is very hard to obtain, even approximately, the amount of ammunition expended in various wars. And then, again, the statistics given are often very misleading; the average number of cartridges expended, per man, of the *whole* force is often given, which average is not usually very great. But it is very rare that the whole force is ever engaged. Generally, all the effort of a battle, especially as regards infantry-fire, falls on the troops in the fighting line, the remainder of the force acting, in a moral sense, by its presence on the field and being available for action. Thus, many battalions fire away a great many more rounds, per man, than the average of the whole force, and in providing ammunition for troops, the estimate must not be for the *average*, but for the maximum expenditure in one day, and also for the possibility of the troops being engaged for several consecutive days, without having an opportunity of making up their supply of ammunition." (Mayne's "Infantry Fire Tactics," p. 280.)

Mayne speaks wisely, but we cannot agree that all troops in future wars will be well trained in fire-tactics at the beginning. At any rate, historical examples will help us and show us the side of safety.

Extracting from Mayne's "Infantry Fire Tactics," and Balck's "Modern European Tactics," Vol. I, the following historical résumé is presented.

In 1866 the Prussians, in both Hanover and Bohemia, used, for 268,000 rifles, only seven rounds per rifle, but at Koniggratz the First Prussian Army, heavily engaged all day, averaged twelve rounds per man, though one regiment expended thirty rounds, and some companies eighty rounds, per man. At Skalitz and Trautenau the average expenditure was twenty-eight rounds, but some of the leading companies fired away eighty to 100 rounds per man. The Austrians, in the same war, with muzzle-

loaders, fired eight times as many rounds, per rifle, as did the Prussians with the breech-loader.

In 1870, on the three days of the 14th, 16th and 18th of August, including Mars-la-Tour and Gravelotte, the French Army expended about thirty rounds per man, but the troops defending St. Privat fired away all their ninety cartridges and had to retire for want of ammunition. In this same war, 1870, the German infantry carried eighty rounds, and twenty rounds more, per man, were carried in the battalion wagons. On the 16th of August, at Mars-la-Tour, the Third Prussian Army Corps, 21,000 strong, used only thirty-five rounds per man, in spite of which ammunition ran short at places. By taking cartridges from the dead and wounded during a pause in the fighting, the Thirty-Fifth Regiment supplied each man with 200 rounds, which were nearly all fired away in the course of the afternoon, so that by evening the ammunition again ran out.

Note in the examples that a large expenditure was made by comparatively only a few of the troops engaged, or else in only one part of a fight. The need of very much ammunition at some points is abundantly proven.

At Buzanval, in 1871, in one of the most obstinate defensive actions in the war, the Fiftieth Prussian Regiment expended large amounts of ammunition, yet one company did not fire a round. Other examples may be taken from this same war, but all point the same lesson. At some parts of the line 200 rounds per man per day were barely sufficient, at others five rounds were enough; while whole regiments would use ninety-two rounds per man in one day at times.

In the Russo-Turkish War of 1877-78, expenditures were larger. In the assault on Scheinovo by the Russians on the 9th of January, 1878, the Eleventh Rifle Battalion fired 120 rounds per man in four hours. The 140th Regiment fired 155 rounds at Karahassankioi on the defensive, and the Thirteenth Rifle Battalion 122 rounds per man at Shipka Pass.

During the Civil War in Chili, 1891, the Congress troops, who were armed with repeating rifles, used such an enormous amount of ammunition that the supply contained in their pouches—180 to 200 rounds—was often used up in thirty-five to forty minutes. At La Placilla, 120 rounds per rifle were fired in the course of four hours' fighting.

Commenting on the above examples, Captain Balck, of the

German Army, in his "Modern European Tactics" in 1897, said, p. 371:

"We should not, of course, imitate the frequently foolish way in which the Chilians and Turks fired enormous quantities of ammunition at extreme ranges, although it occasionally produced some effect. This procedure on their part was due solely to the defective musketry training, absence of all fire-control and want of discipline. The instances that have been cited show that, as a rule, 100 to 150 rounds per rifle are sufficient for a general action. Cases may occur, however, when it would be an advantage to have more, and this must be provided for in fixing the amount of ammunition, both that carried by the soldier and that carried in the S. A. A. carts provided for infantry in the field."

For a final decision we have also to study the Spanish-American War, the Boer War and the Russo-Japanese War.

Major J. F. Morrison's research, as presented in Army War College Study No. 22, on Ammunition Supply for Infantry, shows that before Santiago, July 1, 1898, the troops started in with 100 rounds, and in no case was this too little. The Seventh Infantry, of the Third Brigade, Second Division, had ten to fifteen rounds per man left at the close of the fight, and most other organizations had more left. In the China Relief Expedition the Ninth Infantry was in action thirteen hours. The men went in with 160 rounds and had only about ten rounds left at the end. They were able to collect and distribute the ammunition of the dead and wounded.

Determinative statistics are not available on the Boer War. Mayne says that the expenditure must have been considerable, because troops provided with 150 to 200 rounds each had, in many cases, used them all up before long, apparently without much injury to the enemy, and had to remain for hours on the ground lying still, unable to do anything to assist the progress of the fight. (See the "Infantry Weapon and Its Use in War," p. 151.)

At Modder River, General Methuen believed he was going up against only a rear-guard, and it is not probable that extra ammunition was issued. The Guard Brigade made the attack against the Boer left, and at from 600 to 800 yards were stopped by the Boers' fire and could move not at all in any direction. The Guards lay for twelve hours under the enemy's fire, and gave little assistance to the action. No order reached the first line,

nor were the ambulances able to approach. After twenty-nine ammunition carriers had been killed, no more ammunition was sent forward.

That more marked examples of exhaustion of ammunition did not occur was probably due to what is stated by Lieutenant-Colonel Colwell in his "Tactics of To-day," p. 79, as follows:

"The battalions in South Africa which had passed through the long series of fights (from Colenso to Pieter's Hill) were, by the time they joined hands with Sir George White's garrison (in Ladysmith), so thoroughly seasoned in the art of modern infantry warfare, that each man knew almost by instinct what to do, what to fire at, and how far the ammunition carried on his person could be expected to go. He had learned how, from some point of concealment, to bide his time till he could shoot with effect. And when the plot was thickening, and the enemy's bullets rained around, he could be trusted to maintain an aimed and rapid fire in the right direction, and to add his quota to the storm of lead under which his unit made its final rush."

The testimony before the Royal Commission shows that large quantities of ammunition were lost during the Boer War.

THE RUSSO-JAPANESE WAR.

The Japanese infantryman habitually carries 120 rounds in his pouches, and in his pack a further supply of thirty rounds, and with the battalion there is carried fifty-nine more rounds for him. At the Battle of Nanshan, General McArthur reports the heaviest expenditure as by the Fourth Division, about ninety-two per man. At Telissu part of the Japanese exhausted their ammunition, but the reserves came up and shared theirs. At the Battle of Liaoyang, Major Morrison reports that in the attack made from the right of the Japanese Second Army on the hill position on the early morning of August 31, the troops gained a position at the foot of the hill, but were here checked. They held on here and maintained the fight at short range until 1.00 P. M., when another effort was successful and they gained the trenches on top, but only at one end, and had to hold on until dark. These men started in with 200 rounds and fought it out until dark without a fresh supply. A regiment in the attack on the inner line at Liaoyang, that was very heavily in action, expended in its three battalions about 125.60 and ninety-six per man, respectively.

Captain March reports that General Okasaki's Fifteenth Brigade, in the attack and holding of Manjuyama on the Japa-

nese right for three days, expended 423,000 rounds, or not over about 100 rounds per man.

Major Kuhn, in general conclusions on the war, says: "The expenditure of ammunition, both artillery and infantry, reached extraordinary proportions, and its supply and distribution to the troops will undoubtedly make still greater demands upon the transport system in future wars. The Japanese largely obviated the question of distribution of ammunition to the firing line by giving each soldier from 300 to 350 rounds before going into action. The Japanese ammunition, cal. twenty-six, weighs almost exactly five pounds per 100 rounds, which means that the Japanese soldier carried from fifteen to eighteen pounds of ammunition on his person." * * *

A similar number of rounds of our new ammunition weigh from 19½ to 22 pounds.

It would seem, and appear to be proven from the foregoing illustrations of the past, that 200 rounds per man for a division on the *first* day of a fight is an absolute necessity. It will not all be expended. One hundred rounds more, if properly distributed, should carry the division through the next two days, and furnish a reserve besides. The above considers the infantry only and has application to the offensive. After a fight of three days a redistribution of ammunition, or the arrival of the army-trains, or a cessation of severe fighting for the division may reasonably be expected.

Assuming the above, then, that 300 rounds per infantryman is required for the division, 200 rounds of which must be on the spot the first day, the next question is how and where shall it be carried.

Major Morrison suggests that the ammunition which immediately accompanies the company or battalion, either on the man or in wagons, be called the First Echelon.

REGULATIONS OF FOREIGN ARMIES (ROUNDS PER MAN).

COUNTRY	On the Man	On Company or Battalion Wagons	Total First Echelon	Division or Corps Trains	Total for Division
England.....	100	93	193	132	325
France.....	120	65 ½	185 ½	110.4	296
Germany.....	120	70	190	100	290
Japan.....	150	59	209	100	309
Russia.	120	66	186	77	263

Our Field Service Regulations read ninety on the man, sixty in the battalion-wagons, 120 in the division ammunition column; total, 270 per man. But only 150 rounds are to be immediately available in the first echelon. In the light of the above arguments and best foreign opinion, this is not sufficient. Nor can replenishment from the division column be expected the same day.

Captain Balck, in "Modern European Tactics," Vol. I, p. 371, says:

"It must also be borne in mind that it is only when each army corps has a separate road to march on that it will be possible to replenish the ammunition from the ammunition columns after a battle. If, however, it is not practicable to allot a separate road to each army corps, it will be next door to impossible to replenish the ammunition, except after the lapse of some time."

We know, however, that a reserve ammunition column was at Gettysburg on the third day.

Having determined, herein, that 200 rounds per infantryman must be on the spot the first day, and that the division-train cannot be depended upon, the amount necessarily carried by the first echelon for infantry is settled, 200 rounds.

Shall the man carry it, or shall we use wagons?

In war, the soldier constantly uses his blanket and rations, but seldom uses ammunition, and, except for the moral effect of its presence, he is generally better off without it. Theoretically, then, a soldier's load can best be lightened by reducing his ammunition. We make the soldier carry ammunition for two reasons: (1) To provide for the unexpected happening; (2) to aid the transport in the first echelon. Our men now carry ninety rounds in a convenient-sized belt. To increase the amount would make it inconvenient. The amount is sufficient for the unexpected happening. The balance in the first echelon should be kept in a locally concentrated form on the battalion ammunition wagons. It is not probable, however, that troops designated to provide security will have time to secure increased ammunition from the battalion-wagons when contact takes place. Such troops must be issued extra ammunition when first assuming the duty of security.

To show what radical views are being advanced abroad as to the number of rounds that should be carried on the soldier,

the following leading article from the *Broad Arrow*, London, August 17, 1907, is quoted:

"Some time ago we welcomed an announcement that a new equipment was about to be introduced and experimented with, by means of which every man would be able to carry on his person on going *into the field* not less than 185 rounds, while in addition he might be supplied *on an emergency* with an extra bandolier holding sixty cartridges. * * * It seems to us that our authorities are in some danger of making the mistake of believing that all future actions wherein our troops may be engaged will be very similar to the battles in Manchuria, which were in but very few cases of the nature of surprise, or the result of accidental contact or encounter, but were rather events deliberately prepared for days and weeks beforehand. * * * Believing, then, that the long-prepared action of the Manchurian theater of war should not be accepted as a pattern which those of the future must necessarily follow, we hold it to be of the first importance that the infantry soldier should, at all times in the field, carry upon his person the full supply of ammunition which will permit him to maintain any ordinary action of a day's duration independent of any section, company or battalion reserve. We should recognize that only in very exceptional country will it, in future, be possible to replenish the ammunition of the men of the firing-line, except under cover of darkness, and we must make up our minds to give every infantry soldier at least 200 rounds to carry into action, while if he can carry more in the suggested so-called "emergency bandolier," it must be accepted that the bandolier and the emergency is always on and with him. * * *

"Other continental nations are seriously to work to increase the number of rounds which their men are to carry on them into action; and in the European armies, where the men have hitherto been terribly overweighted, when the physical exhaustion of the modern battle is taken into consideration, it is now recognized that all the soldier can, for the future, be expected to carry is his overcoat, his intrenching tool, his mess-tin, his emergency ration and his ammunition. * * * Last April a special commission suggested certain diminutions in the load of the French infantryman which would permit of his taking 200 rounds into action. In Germany the modifications in the weight and shape of the new S cartridge have allowed the number of rounds on the man to be increased from 120 to 150. The Jap-

anese and Russians have * * * both taken steps to increase the number of cartridges which their infantry shall carry. * * * We must now make up our minds that if our men are to be burdened with little else, each man must carry—not merely into action, but on all occasions in the field—not less than 250 rounds. * * * The first and most crying want is increased ammunition on the soldier; the equipment hinted at two years ago sounds eminently suitable, except that the “emergency bandolier” must cease to be handed out on emergency. Further, the first reserve should be sufficient, close at hand, and at the command of the smallest unit. We can see no advantage in lightening our soldiers’ burdens so that they may arrive unexhausted at the firing-line, if, when they reach it, they are without sufficient ammunition to maintain a long-fire fight and carry it through to a successful termination.” This English view is not being supported in this paper, but its statements should be studied.

Up to this point we have considered the infantry only.

Consensus of opinion points to 10,000 rounds and upward for each machine gun, though the maximum amount fired per gun per day in the First Japanese Cavalry Brigade was 4000 rounds. Our machine-gun platoons carry 6250 rounds per gun on the mules. Four thousand more rounds should be provided on the battalion-wagons. To give the machine-gun platoon a separate wagon is not practical under the present organization. When larger units than platoons are formed, a new question will arise.

Divisional cavalry should carry eighty rounds per man. This should ordinarily last through an engagement, or, if considered necessary, extra ammunition should be issued in advance to be carried on the horse. The divisional cavalry should not be hampered with ammunition-wagons. Regulations should provide for the resupply of the cavalry from the battalion-wagons. To carry forty-five rounds per trooper extra on the battalion-wagons should be ample.

Eighteen thousand rounds of revolver ammunition for the first echelon should be sufficient. One box of 2000 rounds, carried by a battalion-wagon of the first battalion of each infantry regiment, would furnish this. The artillery should arrange to carry their own extra revolver ammunition.

Doubtless, the cavalry and machine-gun platoons will object to the scheme of making them depend on the battalion-wagons for the extra ammunition of the first echelon, believing that, if

their supply may come from any or all, it will come from none. This supply must be provided for, positively, by regulations.

Our regulations provide for one battalion ammunition-wagon, which is not sufficient to carry out the foregoing theories. To give each battalion two wagons would solve the difficulty as follows, each wagon carrying twenty-five boxes of ammunition. * * * Considering the infantry alone, each infantryman could then be issued two bandoliers, making his total supply, including his belt, 210 rounds. Or, theoretically, the supply could be taken as follows, in round numbers:

	On Man	In Battalion Wagons	Total
Infantry and Engineers...	90	110	200
Cavalry.....	80	45	125
Each revolver.....	24	10	34
	On Mules		
Each machine gun.....	6250	4000	10250

The fact that the ammunition would not be distributed in exactly the above figures is certain. For certain parts of the division will require more than other parts. As long as the ammunition is in the battalion-wagons, it is in convenient form for making the supply at any point equal the demand. The addition of one more battalion-wagon increases the road space of a division only about 550 yards. This is the length of two battalions, but two battalions could not undo the damage of a lack of ammunition on the firing-line.

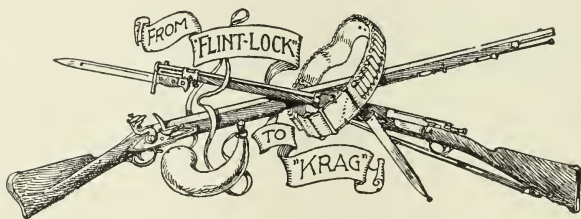
It is now prescribed that the division ammunition column, or second echelon, shall carry 120 rounds per infantryman. In spite of the proposed increase in the first echelon, the second echelon should remain the same, making the total with the division 330 rounds per infantryman. Should the wear of campaign reduce the number of wagons, the second echelon, rather than the first, is the one to be primarily sacrificed.

Behind the division-trains must be the army-trains, ordnance-trains and depots, which must be prepared to promptly replenish the division ammunition. To consider definitely any ammunition organization behind the division-trains is too speculative for practical result, and enters the general field of army supply and transportation, which is not yet established. Too specu-

lative, yes, because this country has not yet a division organized in all its parts on a prescribed definite plan.

The considerations so far have been for a field-army, regardless of whether on the offensive or defensive. Ammunition supply is more difficult for the offensive, and it is with regard to such movements that the problem should be determined. The defense usually solves the problem; witness Plevna, where arrangements were made to supply 500 rounds at any threatened point. The Russians left 5,000,000 at Port Arthur, many boxes at Liaoyang and 26,000,000 rounds at Mukden. St. Privat told another tale, however. Bazaine withdrew for lack of ammunition, but it was because his field-army was not properly supplied.

[TO BE CONTINUED.]





Some of Mischenco's Cossacks.

CAVALRY OPERATIONS IN THE RUSSO-JAPANESE WAR.*

BY LIEUT.-COLONEL JOHN C. GRESHAM, FOURTEENTH CAVALRY.

MISCHENCO'S RAID (MAY 17-24, 1905.)



AFTER the Battle of Mukden the only military event in Manchuria worthy of notice was the second raid of Mischenco.

On May 17th his detachment began its march; it comprised the Ural-Transbaikal Cossack division, and the mixed Caucasus division, with six field-pieces.

The Japanese outposts were driven southward and an advance was made on the village of Sinluntchjuan, which is about twenty-five kilometers north of Tchantufu. While one part of detachment made a demonstration before Sinluntchjuan, the other turned the Japanese positions on their left and continued its raid south.

On the 18th the sotnias of the advance guard of the detachment succeeded in destroying a long stretch of telegraph line and burned a depot of supplies. On the same day the other sotnias fought and dispersed several strong bands composed of Hunghouses and Japanese, who attempted to surround the detachment.

Continuing the turning movement on May 19th, the detach-

*Concluded from May JOURNAL.

ment took the road leading from Fakumyne to Shifutse, a village situated on the left bank of the Liaoho, on the Fakumyne-Mukden road, about forty-five kilometers northeast of Sinminting. On the heights south of Fakumyne the Japanese had posted a detachment, and along the Shifutse road had established strong outposts furnished with machine guns.

Mischenco, after cannonading the strongly intrenched position, assaulted it. The Japanese withdrew in disorder, making little resistance.

Two Japanese companies were sabered and a third made prisoners. In one of the places evacuated by the enemy more than one hundred corpses were found. Marching in trace of the assailing units, several sotnias of the Tchita Regiment succeeded in gaining the road leading to Sinminting, along the right bank of the Liaoho. While some of the sotnias made a reconnaissance in the direction of Sinminting and destroyed the telegraph line, others pursued and destroyed a strong hostile convoy seven kilometers long, near Shifutse. On this occasion the Cossacks took several prisoners and captured a hundred horses.

Upon its return, Mischenco's detachment again dispersed several bands composed of Hunghouses and Japanese, and returned to its old position on the 24th of May, bringing back 234 prisoners, of whom five were officers, several machine guns and a number of horses.

THE RUSSIAN CAVALRY.

It will be profitable to study a little more closely, even at risk of repetition, the causes of failure of the Russian cavalry.

When Kuropatkin took the offensive before Shaho, it was thought that his cavalry, numerically superior to that of the Japanese, was finally going to play an important part, and the more so as the plain upon which the Russian right wing maneuvered offered a vast field of operations for this arm. This hope was not fulfilled.

The breaking up and scattering of the Russian cavalry prevented it from profiting by its numerical superiority. Without considering the independent cavalry under Mischenco and Rennenkampf, 143 sotnias remained available to Kuropatkin as a reserve. But out of these 143 sotnias, ninety-one had been distributed among the different groups, and the fifty-two others

had been assigned to the army corps (at least seven to each corps). These fifty-two sotnias were not available for fighting, as they furnished platoons as escorts to the staff, were used as mounted orderlies, etc.

This goes far to explain the inactivity of the cavalry at this period, when we recall that the army corps had groups of mounted infantry at their disposal. This argues mismanagement.

In spite of a four weeks' lull in operations, the Russian cavalry had not succeeded in furnishing the commander-in-chief with any exact information concerning the disposition of the principal Japanese forces. All information of any value was received by him from emissaries; this was so far the case that, on the morning of the day he commenced his offensive march, he first learned of the disposition of the principal forces, intelligence which upset all the plans he had made. This all shows want of spirit and enterprise.

It has been said above that reports brought in by the cavalry were not believed or were, at least, ignored. This alone was enough to rob this arm of its spirit and efficiency.

At Mukden a young second-lieutenant arrived from a reconnaissance and reported to an old general that four Japanese regiments were marching around the Russian right. The general, instead of taking the necessary action, became red in the face with rage and bellowed at the officer: "My friend, the fear of danger has made you lose your head; go and be more careful!"

A few days afterward another officer rode up at full speed and reported to another general that six Japanese regiments were enveloping the right flank. The messenger again received a furious reply, but soon the general had to yield to the evidence of his own senses, for a Japanese army of 50,000 men was outflanking the Russian right.

It is a pity the names of the generals were not given by Lieutenant Nidoine, the Russian officer who tells the story. Perhaps he was afraid to give them. Could one of them have been Kuropatkin himself? These two incidents, strange and big with possibilities of disaster, make us wonder if they were frequent at Mukden and on other fields, and also make us want to know their true meaning.

Such incidents under such circumstances are dramatic too, and recall Macbeth at Dunsinane, when in despair at his for-

tunes he roared to a messenger, who reported the approach of the English:

Where got'st thou that goose look?
Go prick thy face and over-red thy fear,
Thou lily-livered boy!
Death to thy soul! those linen cheeks of thine
Are counsellors to fear. What soldiers, whey-face?
Take thy face hence!

We can easily understand the rage of Macbeth, but what must we think of the strange conduct of the Russian generals at Mukden?

Does it argue stupidity, indifference, jealousy, disloyalty to superiors, want of patriotism, treachery? Or does it indicate weariness, disgust, despair from a belief in the worthlessness of the Russian cavalry? Whichever be the truth, it holds no crumb of comfort for the poor cavalry. For the former qualities in generals are no less fatal than the latter in the Cossacks.

Kuropatkin's book, which has been suppressed, would doubtless throw light on this important question.

The Cossacks formed the mass of the cavalry. All but those from eastern Siberia, the Kuban, the Terek, the Ussuri, and the Amur, carry the lance in the front rank; this is a pike about nine feet long with quadrangular head and weighing about seven pounds. Of the Siberian Cossacks and those from the eastern provinces great numbers were pure Buriats, which are of a type somewhat like the Eskimos. They do not know the Russian language and are not very intelligent. The Cossacks from the western provinces, from the Ural and from the Don, differ little from other Russians. They were mostly reserve troops.

The original Cossacks were simply renegade Russians, who sought the frontiers for the freedom of the life, and were organized into military colonies to protect the frontiers. As the development of Siberia progressed, it became the custom to plant military colonies of these people. At first they were only active horsemen, and organized as cavalry of a most irregular sort. Within recent times, both infantry regiments and light batteries have been raised among them to some extent, so that now the army contains not only the mounted Cossacks, but also Cossack infantry and Cossack batteries. The Don Cossacks, one of the oldest Cossack establishments, have become rich and luxurious, and are a *corps d'elite* compared with other Cossacks. The Cossack draws no pay to speak of. He furnishes his own horse

which, if lost in service, is replaced by the Government. The Don Cossacks are the best mounted, but their horses are small compared to those of the European troops, and show Arab blood very strongly. These horses, though light in weight and conformation, are very good. The horses of the other Cossacks diminish in size from west to east, and those from the Transbaikal and provinces east of that are Mongolian ponies of about twelve hands, much like what is known in the Philippines as the China pony. The Cossacks are good riders, but care little about sore backs and never walk to spare their horses except when they have to.

In common with all Russian soldiers they have a high respect for their officers, but are very lax in certain observances, and especially in retaining their formations. This is very noticeable in their marching, and particularly in making and breaking camp. The sotnias leave bivouac usually without any attempt at a formation, and the men mount up individually and get in column on the road. These peculiarities are well known and argue poor discipline, but what the world expected of the Cossacks was efficient scouting, good outpost duty and great independence in the performance of such work. The foreign attachés were disappointed in this, and it is said that even in Russia the Cossacks are severely criticized as an antiquated institution. It was clear that the Cossacks, as they had been bred on the steppes, did not understand service in the mountains. They showed much aversion to mountain climbing, which was often their undoing; for in patrolling they stuck to the valleys, ignoring the Japanese, who held the hills. This peculiarity was a fruitful source of Japanese caricatures. All observers agreed that their patrolling and outpost duty were very inefficient, and while the officers of the Cossacks thought the Japanese timid, on account of the care with which they scouted, it remains that the latter had better information than the Russians.

The Cossacks were personally very dirty, but their facility in taking care of themselves and their indifference to hardships were admirable. They are capable of enduring hunger and cold, and suffer little from sleeping on wet ground without covering.

The Cossacks are renowned as marauders, which is largely due to the teaching of their officers and the fact that their subsistence depends much on their own exertions. Many young officers of the regiments of guards stationed in St. Petersburg

were given Cossack commands and made the senior captains of sotnias. This was naturally resented by the permanent officers of the Cossack organizations, but as time went on that feeling probably wore off, as numerous casualties gave good promotion. The "sotnia" corresponds to the squadron in the regular cavalry, and has a similar organization with senior and junior captain and a proper complement of lieutenants. The senior captain is responsible for its administration and handles the funds necessary to pay the men and purchase subsistence stores. With successful foraging, the saving on the rations is considerable.

The experiences in the Russo-Turkish War, 1877-1878, showed that the Cossacks had lost the importance they formerly had as cavalry. The mounted tribes which grew up with their horses have changed to an agricultural people and have lost their old characteristics. The Cossacks of the steppes of East Russia, Siberia and East Asia are as yet hardly touched by the march of civilization, and stand so low in mental development that they are incapable of meeting the demand now made for training and intelligence in cavalry. The conditions of their service makes a strict military training difficult, and the Cossack is still considered, as of old, an irregular mounted man with special privileges, although all conditions have changed. For these reasons the Cossacks have dropped behind in development; the breed of their horses has deteriorated; regular training as cavalry has not been provided for; and their use in reconnaissance proved inefficient, as neither officers nor men had requisite training or capacity. The Cossack regiments stationed in Poland and western Russia stand on a far higher plane than their comrades in the Far East, who unquestionably represent a thoroughly incompetent cavalry, as appears clearly when capable leaders like Rennenkampf could accomplish so little with it. The want of proper artillery and poor small-arms practice has been noted above and served to intensify the defects.

SOMETHING TO BE PRAISED AND IMITATED.

An admirable feature of the Russian cavalry, as well as of the infantry, was their noiselessness. There was neither jingle nor rattle, and but few trumpet calls and little shouting of orders.

They carried nothing that glittered, and mounted parties at

a distance sometimes reflected a faint glimmer, as of dull metal, never of brightly shining points.

THE JAPANESE CAVALRY.

In spite of its defects one cannot but be favorably impressed by the spirit and, indeed, by the work of the Japanese cavalry.

Pure cavalry battles did not occur at all. The Cossacks failed to search for and find the opportunity; the Japanese cavalry felt that it did not have the ability and numerical strength to cope with such problems.

On the other hand, the Japanese cavalry was successful in other fields and proved at least equal, and sometimes superior to their adversary in reconnaissance, raids and dismounted action. In reconnaissance the intelligence of officers and men was apparent, as well as their enterprise and courage. Dismounted action was employed partly in reconnaissance, partly in operations made in co-operation with the other arms. The cavalry seemed cautious and hesitating because of its lack of numbers. But in all parts of its many duties it achieved good results and filled its place very well. It possessed the important capacity to adapt itself to the peculiar conditions created by the war. That the Government of Japan, despite its recognition of these achievements, demands more is apparent, since after the war the increase in cavalry, its more thorough training and better equipment were immediately taken in hand.

At the Battle of Mukden all the available Japanese cavalry was operating on the left front of Nogi's army, its movements extending eighty miles west into Mongolia.

The Japanese cavalry was organized normally into thirteen regiments of divisional cavalry, each of three squadrons, and two independent brigades, each of two regiments of five squadrons, of which four only took the field, the fifth being retained as a depot for training remounts and recruits. The First Brigade was composed of the Thirteenth and Fourteenth Regiments and the Second of the Fifteenth and Sixteenth. The two brigades performed the duties of corps cavalry, and were assigned to different armies, as circumstances required.

During the war a new cavalry regiment, the Seventeenth, was organized, but little or nothing is known or reported as to its services.

There was also organized two "independent reconnoitering

detachments" of two squadrons each, whose exact organization and duties do not clearly appear.

The weakness of the Japanese in cavalry is forcibly shown by the fact that it constituted only about one-seventieth of the entire field force in Manchuria, a country eminently adapted in many parts to cavalry movements. In face of the Russian superiority in cavalry it was all the Japanese could do to perform the duties of scouting, reconnoitering, raids and contact without attempting to engage in cavalry actions. Their squadrons were too few and precious to be frittered away in charges, and their tactics were necessarily influenced and regulated by the conditions of the war. In order to strengthen the cavalry brigades some of the squadrons of the nearer divisional regiments were generally added. While engaged in the siege of Port Arthur practically all the cavalry of the besieging army was employed with the field armies in the north.

Owing to the conditions the rôle of the Japanese cavalry was for most part defensive and its main reliance the firearm. It took the field with but thirty-six rounds of ammunition for carbine, which was soon increased to 150 rounds. By adopting defensive tactics, fighting on foot, and keeping more or less near an infantry support, it was able to hold its own and perform the duties of scouting and reconnoitering fairly well. The numerous villages which dot the plains of Manchuria afforded excellent defensive points, for, once the cover of a village was gained, it put an end to hostile mounted action and gave time to receive reinforcements or to make a dash for the next village in case the enemy dismounted to fight on foot.

A favorite scheme of the Japanese cavalry was to lead the Russian troopers into an infantry ambush, a trick that was frequently worked in outpost and reconnaissance duties.

The Japanese cavalry officers showed a disposition to censure the Russian method of training cavalry which makes it more a mounted infantry than a true cavalry force and destroys the true cavalry spirit. Although compelled to adopt defensive action and to fight dismounted, the Japanese cavalry officers believe in training cavalry primarily as such and not as mounted infantry. Such at least is the opinion of General Akiyama, the father of Japanese cavalry, who, in spite of the experience of the war, is an adherent of the *arme blanche* and shock tactics. Perhaps his opinion is influenced by the Japanese traditional fondness for the sword, which is called the "soul of the Samurai."

In future wars with Japan her adversary had better be well prepared for both shock and fire action.

There can be no doubt that Japan was heavily handicapped by lack of cavalry and lost many golden opportunities. Both at Liaoyang and Mukden she thus failed to reap the full fruits of victory.

The war practically exhausted the domestic supply of horses, and as she has few of her own, one of Japan's chief difficulties was to procure remounts.

The brigades were accompanied by about 5 per cent. spare horses with pack transport and one day's rations with grain and cooking outfit. There was no supply column. A train detachment followed the brigade as closely as possible and had charge of horse hospital, reserve material and workshops. When on the move the brigades lived mainly by requisition on the country, and when at rest depended on the nearest divisional depot.

The squadrons are complete units for purpose of training and instruction and their captains are held responsible. The First Brigade was commanded by Major-General Akiyama who, in most respects, is the leading spirit in the Japanese cavalry. He was fifty-five years old, had spent four years in France, and speaks French fluently. He is energetic, vigorous, tactful and a fine type of the well-trained and educated soldier with which the Japanese Army abounds. Though endowed with an agreeable personality, he is quiet, reserved and seems to be guided by the proverb, "whoso keepeth his mouth and his tongue, keepeth his soul from troubles." This is wise in all cases; but the wisdom of Akiyama, who is a type of his nation, looked not so much to the welfare of self as to that of the state. For his soul was neither self-centered nor self-bounded, but an active atom in the harmonious soul of a mighty people enamored of their country. For that the Japanese is secretive and cunning past man's thought is wonderfully shown by events before, during and since the great war, and to these traits is largely traceable the amazing success of his strategical and tactical plans and dispositions as well as of his diplomacy. He knows how to beguile the times by looking like the times: for sake of fatherland, he can bear welcome in the eye, the hand, the tongue, but a righteous hate in the heart, and can look like the innocent flower, but be the serpent under it.

This is exalted patriotism and worthy of profound respect and imitation.

To illustrate Japanese secretiveness, it is well known that absolutely no information regarding the effect of Japanese gun fire on the armored battle-ships of the Russian fleets has been made public, or has even leaked out. That the Japanese fire was mercilessly destructive is clear. But no hint has come out of the precise effects. Japanese admirals and Japanese generals meet and exchange compliments and commonplaces with American officers, but cannot be induced to part with one scintilla of information which might prove of value to the Americans. They sank the Russian ships and then they raised them. They gathered an immense fund of invaluable information, but they have never imparted the smallest fact.

The Japanese cunning likes ruses and uses them whenever possible. He is often assisted by his knowledge of the Russian language, which many of them know perfectly. But a well-trained ear can detect his pronunciation, because he cannot sound the letter *r*. For example, he says not "Hurra," but "Houla"; not "papirossa," but "papirossa," like the Chinese. But it is easy to be deceived. Taking advantage of his knowledge of the Russian language, he used it successfully when the troops had not yet learned his subterfuges. Thus, dressed like a Chinaman, he often challenged the sentinels in Russian, asked for the commander of posts, and listened to conversations; in battle—in the dark—he gave orders in Russian. Thus, during the attack of Tumentzuling Pass, when a company of Russians rushed forward with the bayonet, the men heard distinctly from the trench: "Brothers, these are your men." The company stopped involuntarily, but the senior non-commissioned officer, following closely the company commander, cried: "Don't believe them, brothers, they are Japanese; the ruffians!" But this moment of delay cost the company two wounded officers and ten men. The Japanese succeeded in discharging their rifles at close range. From the other trench the Japanese shouted: "Tenth Company, to the rescue!" Farther on they cried: "Don't fire at your own men!"

But it is time to return from this digression.

The two colonels of the First Brigade, Koike and Tayabi, were forty-one and forty-three, and very vigorous. Koike is a good type of the *beau sabreur*, while Tayabi is more of the "brainy" type.

The Second Brigade was commanded by Major-General

Tomura, who was above fifty and of very small stature even for a Japanese.

The cavalry is regarded as a sort of *corps d'elite* and the officers are from the best families, but brains are a primary requisite. In the training of officers long-distance rides and other competitions form a feature. The cavalry recruits are selected for intelligence and for their conformation as horsemen. No extra pay attaches to the cavalry service, but an allowance is made for shoeing and saddlery, and a horse is furnished. Most of the officers, however, own private mounts.

The soldiers are well instructed and all privates can read maps and take care of themselves individually.

Japan is fully conscious of her weakness in suitable mounts, and has for some years been engaged in improving the quality by establishing stud and brood farms and encouraging the peasantry.

The remounts required in a year's campaigning amounted to about 50 per cent., drawn from the horse depots of the army and from local purchases and capture.

The Japanese cavalry employed spies drawn from the Manchurian population and very skilfully utilized every available means to keep informed of the enemy. At Wafangu, as stated above, a Japanese cavalry brigade, supported by a battery and a machine-gun company, delayed the advance of the Russian right by fire action until the arrival of the infantry and thus contributed materially to the success of that day's fight. The Russians were entirely ignorant that they were opposed by dismounted cavalry. The Japanese cavalry division skilfully took a hand dismounted on several occasions at Mukden, and even made successful attacks against hostile infantry when it was necessary to clear the way for further reconnaissance.

A comparison between the Cossacks and the Japanese cavalry leads to the conclusion that intelligence and enterprise are the primary requisites for cavalry achievements. That numbers are important is illustrated by the fact that the efficient Japanese cavalry was in the end too weak for efficient tactical pursuit.

CONCLUSIONS.

In general, the experiences of the war show clearly that the deficiencies or defects of the cavalry were powerfully felt on both sides and that modern war cannot be waged without good

and abundant cavalry. The demands made on all arms have been tremendously increased owing to improvements in material, arms and munitions, and the demands on cavalry are not last or least in this respect. The long range of the modern rifle and its accurate and rapid fire compel the cavalryman to remain at a distance during reconnaissance and to use the terrain in the most painstaking manner. The proper use of terrain by the hostile infantry, together with smokeless powder, will tend to increase the difficulties of reconnaissance. All these considerations demand increased training in the cavalry. It needs mounted action to sweep aside hostile cavalry, to open the way for reconnoitering the enemy's situation, position, location; it needs also dismounted action to enable it to meet demands made upon it in special circumstances. It will be compelled to fight dismounted far more frequently in future than in the past. It is probably true that a cavalry force cannot make a charge—a death-ride—without weakening its fighting power for weeks, even months, while it may often take to dismounted action without danger of too great a loss. Therefore it must master dismounted action very thoroughly. This necessitates training and practice. Skilful use of terrain, fire direction, fire discipline, good marksmanship at effective and not too distant ranges, are the conditions of success. In order to give the cavalry sufficient fire power an ample equipment of machine guns, after the Danish manner, cannot be dispensed with. Extreme mobility is the first requisite of these machine guns, and guns and ammunition must be transported on animals and the men must be mounted.

The late war teaches with emphatic clearness that strategical and tactical reconnaissance is of first importance. In this duty cavalry must use all the means at its disposal: mounted and dismounted action, transmission of information by telegraph or visual signaling, passing obstacles, especially water-courses, by swimming or by utilizing available bridge material, destruction of railroads, etc. No other arm needs a more comprehensive preparation and training for war than cavalry, and above all else it must maintain and foster the true cavalry spirit and be capable of riding down the hostile cavalry in the charge. The sense of responsibility, the spirit of enterprise and daring of the leaders must be fostered just as much as the spirit of devotion and self-sacrifice of the men. The war in the Far East has not negatived these principles, but has emphasized them. It has not

demonstrated the uselessness of cavalry, but its value and indispensability in modern war.

Meunier makes the following ingenious suggestions as a result of his study of the war :

At first blush it would appear that the rôle of cavalry as an instrument for exploration has become very difficult, and that in future it will be little able to determine more than the mere outline of the enemy; that is to say, no more than he wishes to be seen or to be believed.

The true means of exploration hereafter will be the dirigible balloon; it alone will be able to discern clearly the direction of great strategical movements and give the supreme command timely information as to the designs of the enemy.

And when oriented by these first indications, the cavalry can then be used either to clear up the situation or to delay the enemy and give the general time and space necessary to make his strategic plans and dispositions.

To accomplish this latter task suitable artillery, machine guns and infantry cyclists will be a powerful aid to the cavalry.

And in this connection we may state the practical uselessness of raids like that of Mischenco in January, 1905, which may be summed up in four words: much traveling for nothing.

It is no less true that the methods of modern attack leave nothing for cavalry to do on the front; it is on the wings and on the rear of the enemy that it will be able to make powerful diversions, provided it is accompanied by artillery and machine guns and, when necessary, by battalions of cyclists whose creation is demanded by General Langlois with so much persistence, and which would lend to cavalry in favorable terrain an offensive power of deepest consequence.

Meunier, it should be noted, does not condemn all raids, but only those like Mischenco's. In another place he praises in strong terms those made by the Japanese, whom he likens to the Steingels and Curelys.

This study will be concluded by two quotations, one from General De Négrier and one from Sir John French, in the order of their names :

"In the very first place, all the subdivisions of the arm—dragoons, hussars, lancers, etc.—ought to be amalgamated into one single cavalry. Regiments should only differ one from another in the stamp of horses on which they are mounted, which should all be of the same standard. The uniform for active service should be the same for all: the broad-brimmed felt hat of the American Army, protecting from both rain and sun, yet allowing the wearer to shoot freely while lying down; an easy jacket with turn-down collar; loose breeches, boots and leggings suitable for walking over plowed land. Instead of the great coat, the poncho of the Mexican horseman made of woolen waterproof. It covers the rider, falls over the front of the saddle, and is easily unfolded. As equipment, the infantry rifle with the bayonet sheathed along the sword-scabard attached to the side of the saddle.

With regard to this, it is useful to remember that all the English cavalry has already been equipped with the infantry rifle. They already

begin to realize that in battle cavalry must now act as infantry. The manner in which the rifle is carried is convenient, and does not tire the rider like the French carbine. The rifle, muzzle downward, slips into a long leather bucket suspended on the off side of the saddle in such a manner that the butt does not reach above the level of the waist. In jumping the rider feels no concussion.

Another system of carrying the rifle, that of Captain Anderson, was lately adopted in the Indian Army. It is still more simple. A crescent-shaped spring lined with leather is suspended to the saddle on the near side. As the rider mounts, he passes his arm through the sling or strap attachment, and the small of the rifle is brought against the clip. In pressing it down the two horns of the crescent close upon it, the weight of the weapon being thus thrown upon the spring. The rider can fall off to right or left, but the rifle disengages itself at once and he runs no risk of being dragged.

But to return to the general question of the employment of cavalry. We know that scouting, to be effective, must be carried out by specialists. It demands natural keenness of sight, a deer-stalker's eye, initiative resource, coolness and endurance—qualities which can only be secured by a rigorous selection of the fittest. It should be the duty of every regiment to organize its own body of scouts, to grant them certificates, and on mobilization to recommend the most efficient for service with the staff as well as with the army itself. It would be a good thing to re-engage them, give them the rank of non-commissioned officers, and to mount them on the strongest and the most willing horses, which could be replaced every year by a sufficient number of blood animals from the remount department. The simpler service of keeping contact can be performed by ordinary patrols.

Every squadron ought to be provided with two machine guns of the Danish cavalry pattern. Divisional artillery should comprise two batteries of "pompoms" and a battery of large caliber howitzers, which, as they can readily be taken to pieces and put together again, can be moved as easily as the lighter guns of the horse-artillery. If this were done, we should be enabled to pierce the enemy's screens and probe the composition of the force behind them to the quick—the only means of obtaining information of any real value.

As regards the tactical part cavalry is called upon to play, it must now be regarded as the arm which allows an officer commanding-in-chief to move, with the maximum of rapidity, the rifles, guns and machine guns to any point where he wishes to produce a special effect, or to guard against any threatened danger. Thanks to the swiftness of their movement from place to place, bodies of cavalry must play a dominant part in the battles of the future. They will form the reserves which a general will have at his disposal, and with which he will be enabled to carry out his tactical surprises. With the enormous fighting-front of modern battles, no other arm can arrive in time to produce effects of this kind. By its fire suddenly opening upon an unexpected point it will change retreat into rout. Then, mounting once more to pursue, it will utilize the horse as its weapon no less than the traditional cold steel to reap more trophies than it ever garnered in days of yore.

So far from being lessened, the part cavalry will be called upon to play in actual warfare will thus assume a paramount importance. To fulfil it aright, its numbers must be adequate. Consequently it is most inadvisable to fritter it away on such accessory services as those of orderly duties, the delivery of despatches, the furnishing of escorts, protection of convoys, etc. Divisional cavalry and reserve squadrons

should be thoroughly trained in the dual duty now imposed on them. No time should be lost in enforcing the regulations laid down by Napoleon in his "Notes on the Art of War" (Note 3, Cavalry): "The scouts shall be light infantrymen, mounted on horses of the smallest type. They will furnish escorts for superior officers and generals of division, will convoy prisoners and baggage, and will furnish despatch-riders." We ought, accordingly, to create a company of mounted men in every infantry division. It should not be difficult to find from 25,000 to 30,000 cobs not already actually requisitioned. These companies would only be formed on mobilization, with the exception of those in the covering corps (troops stationed on the frontiers), which would be permanently embodied. It would be sufficient in the other infantry divisions to keep up the necessary harness and saddlery equipment."

"I cannot speak with any certainty as to what has happened in European armies, but as regards the British cavalry, I am absolutely convinced that the cavalry spirit is and may be encouraged to the utmost, without in the least degree prejudicing either training in dismounted duties, or the acquirement of such tactical knowledge on the part of the leaders as will enable them to discern when and where to resort to dismounted methods.

How, I ask, can the cavalry perform its rôle in war until the enemy's cavalry is defeated and paralyzed? I challenge any cavalry officer, British or foreign, to deny the principle that cavalry, acting as such against its own arm, can never attain complete success unless it is proficient in shock tactics.

Cavalry soldiers must of course learn to be expert rifle shots, but the attainment of this desirable object will be brought no nearer by ignoring the horse, the sword or the lance. On the contrary, the élan and dash which perfection in cavalry maneuver imparts to large bodies of horsemen will be of inestimable value in their employment as mounted riflemen when the field is laid open to their enterprise in this rôle by the defeat of the hostile cavalry."

Captain Anderson's crescent-shaped spring and the woolen waterproof poncho mentioned by De Négrier are worthy of careful consideration and test by our Ordnance and Quartermaster Departments.

For the Danish machine-gun see more fully *United States Cavalry Journal* for April, 1907. Lieut. Christian Briand, Fifteenth United States Cavalry, who describes it, is an officer of sound judgment and professional attainments, and in this matter has the support of De Négrier.

There seems no doubt that in future wars more cavalry will be required than ever before, and that it must be thoroughly trained in shock and dismounted fire action.

The successful cavalry leader will be he who can discern the psychological moment for using the one or the other.

Everything should be done to arouse in the national militia an interest in cavalry. Every State should have as much of it as possible, and a good share of the expense should be borne by

the general government. In future wars the nation that has not a large, well-trained cavalry will be at a serious disadvantage against one that has. Now is the time to prepare.

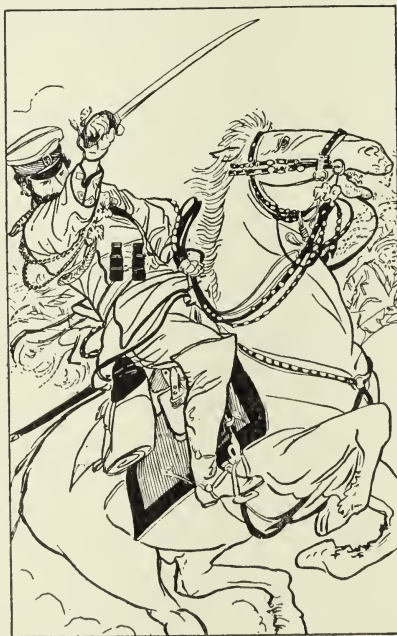
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MILITARY BANDS.*

BY MAJOR FREDERICK A. MAHAN, U. S. A. (RETIRED).

ORGANIZATION OF BANDS.



TO utilize all the available instruments in proper proportions would require a band of 130 to 150 men. Such an organization is impossible for a military band.

Before the actual organization of our bands can be determined, some idea of a band's duties must be formed. What are these duties? Are they mainly for setting the step on the march for the regiment to which the band belongs? If this be so, we need an organization quite

different from that of the band as this term is understood. The sound of the band does not carry far. If it be placed at the head of the regiment marching in column either of fours, or of companies at full distance, the last third of the column does not hear the band unless it be in some very quiet country place. A body of fifteen or twenty buglers and as many drummers would be far better for this purpose than any band. The marches of the French Army are nearly always arranged so that the field music (buglers and drummers) can take part. The field-music marches just in front of the band. The writer has stood on the curb of the sidewalk as the band went by not ten feet away; but he could never hear it, as it was entirely overpowered by the field-music. He could see that the whole band was playing, but he could not hear it, although on one occasion he counted twelve buglers, fourteen drummers and fifty-seven men in the band. The noise of the fifty-seven men of the band was completely drowned by that of the twenty-six field musicians.

But is the work of the band on the march or on parade its most important duty? Are there no great public functions, no imposing ceremonies, which require the band to enhance their significance and to lend power and dignity to the occasion? Does the moral effect of the band on the troops count for nothing? Is the work of the band in brightening the dead monotony of

*Concluded from May JOURNAL.

garrison life, for men who have no resources within themselves, nothing? Is it a matter of no moment that the band plays an important part in leading the people who live near a military post, to know the army, to become interested in its welfare and in its work?

After nearly fifteen years of study of military bands, the writer has come to the conclusion that duty on parade or on the march is almost the smallest part of a band's work and requires the least of its time, consequently it can have an organization which, while it diminishes by very little, if at all, the band's efficiency for the march or parade will vastly increase that efficiency for the many functions and ceremonies of which the band must be, necessarily, an important part.

There are certain principles which govern in the organization of bands, and a disregard of them bears its results in the tone quality of the mass.

1st. So far as possible, families should be complete.

2d. The reeds, including the flutes, should equal in number the so-called brass instruments.

3d. The B-flat clarinets should comprise one-fourth of the band exclusive of the battery.

There is not one band that the writer ever heard in the United States which does not violate the first principle above enunciated, for they all use the cornet as the soprano, indiscriminately, of the flügelhorn and trumpet-trombone families, an instrument which belongs to neither family and swears at both. The soprano flügelhorn in B-flat is the soprano of its family and should be so used; the same is true for the soprano trumpet in B-flat. In this case the two families make an interesting contrast with each other, between the velvety mellowness of the flügelhorns and the martial brilliancy of the trumpets and trombones. As it is now, this contrast cannot be had because the vicious habit has been developed of using the cornet as the common soprano for both.

The writer has sought information on the subject of bands from every direction; not only in Europe but from Mexico, Guatemala, Honduras, Ecuador, Brazil, India, Japan, Dutch East Indies, Persia and many other countries too numerous to mention. After a very careful study of all, the conclusion was reached that a good, properly-balanced band could not be had with less than forty-two performers, exclusive of the bandmaster and assistant bandmaster.

The following organization fulfils fairly well, not entirely, the conditions laid down above :

Reed group. 19 performers.	$\left\{ \begin{array}{l} 1 \text{ piccolo.} \\ 1 \text{ flute.} \\ 1 \text{ E-flat clarinet.} \\ 10 \text{ B-flat clarinets.} \\ 2 \text{ alto saxophones.} \\ 2 \text{ tenor saxophones.} \\ 2 \text{ barytone saxophones.} \end{array} \right.$	Flügelhorn family. 14 performers.	$\left\{ \begin{array}{l} 2 \text{ B-flat flügelhorns.} \\ 3 \text{ E-flat altos.} \\ 2 \text{ B-flat barytones.} \\ 3 \text{ B-flat basses.} \\ 2 \text{ E-flat deep basses.} \\ 2 \text{ B-flat double basses.} \end{array} \right.$
Trumpet- trombone family. 7 performers.	$\left\{ \begin{array}{l} 2 \text{ B-flat trumpets.} \\ 2 \text{ E-flat trumpets.} \\ 3 \text{ tenor trombones.} \end{array} \right.$	1 snare drum. 1 bass drum and cymbals.	

The flügelhorn family is complete. To be sure the tenor does not appear, but it is not needed; it is an accompanying instrument exclusively. Its tube, rather narrower than that of the barytone, allows it to bring out more readily the highest notes of the scale. The wider tube of the barytone gives a rather more mellow sound, consequently, as the high notes of the scale of these two instruments are of exceedingly rare occurrence in accompaniments, the barytone is the better instrument for the purpose required here.

The trumpet-trombone family is complete, save for the bass trombone; but the powerful, ponderous voice of this instrument is too heavy for a band of this size.

The saxophone family is complete save for the bass, which is too heavy and cumbersome for marching.

The greatest void is in the family of the clarinets where the altos and the basses have to be replaced as best they can be by the saxophones, which, by the way, make a fair substitute.

The reed group very nearly equals the mouthpiece instruments in number—nineteen to twenty-one.

Exclusive of the battery, there are forty performers, of whom ten are B-flat clarinets.

The worst feature in the organization is not having a separate man for the cymbals. It is a very common custom everywhere to give the bass drum and cymbals to the same performer. The custom is bad because the cymbals cannot be struck as they should be; when struck, the blow should always be a glancing one.

Two B-flat trumpets could be substituted for the two in E-flat, the tone quality would not suffer; but they must play accompanying parts.

As the assistant bandmaster would always play his instrument when the bandmaster is present, he would be an additional performer for whom to provide. He would be, of course, a master of his instrument and hence he would play the leading part. This would be a B-flat clarinet, a B-flat trumpet, a B-flat flügelhorn or a B-flat bass; seldom a flute or trombone, and rarely an E-flat clarinet, an alto or a baritone. As an additional "first" instrument never comes amiss, the assistant bandmaster will be a welcome addition wherever he may belong. Whenever he has to replace the bandmaster, there will always be still a full part at his desk.

The bandmaster, it is needless to say, will never play. With a band of this size the bandmaster will have all he can do to attend to the proper performance of the band's duties, seeing that the men who are behind study their instruments so as to come up to the level of the better players, arranging music, conducting rehearsals, etc., so that there will never be left to him the time to keep up on his instrument. In order to keep in good practice a solo performer must give at least two or three hours a day to this work; the bandmaster cannot spare that much time from more important duties.

Having determined the instrumental organization of the band, the next thing is to find the bandsmen.

How many officers have any idea of the amount of study necessary to make a good performer? A careful inquiry among the professors of wind instruments at the National Conservatory of Music at Paris puts the time for becoming a really good performer on any instrument at four to five years. This period does not include the time required to master the elements of music, values of notes, of rests, intervals, time of all sorts, scales major and minor and their construction, etc., in fact, a very clear knowledge of solfeggio. To learn these elements will require at least two preliminary years. So, for a boy to become a good performer, he would have to make up his mind to six or seven years of hard work, and this supposes a boy with a decided taste for music and possessed of an energy and perseverance for greater than that possessed by most boys. It is found that the experience of the Brussels Conservatory develops practically the same result. So it may be said in general terms that, to make a good band musician, there is needed a period of five to seven years. When the term "good band musician" is used, it does not mean

a great artist or soloist. Certain special natural gifts and an endless amount of study are needed to reach this stage.

But the study mentioned above must be done with good teachers, otherwise time will be wasted, bad habits formed and general dissatisfaction the result. All this study with good teachers means the expenditure of much time and money. Men who have gone through a good course of musical study, merely for a single instrument, cannot be cheap. The writer stated to the War Department in 1898 that the pay of bandsmen could be placed at \$35 per month for bandsmen of the first class; at \$30 per month for those of the second class and at \$25 for those of the third; but he thought even then that this rate of pay was ridiculously small. The bandsmen would have, of course, as do all enlisted men, rations, clothing, quarters, medical attendance and hospital care, and their retired pay when their service was ended; still, all these advantages do not compare with the \$40 or \$50 a week paid not infrequently to competent men in first-class bands. The number of men proposed for each class is seven, fourteen and twenty-one, respectively.

It is a mistake to give bandsmen rank as sergeants, corporals, etc. These grades imply command, and bandsmen have no right to command. The uniform of each class should be distinctive. The classification of his men should be made by the bandmaster and approved by the colonel of the regiment; advancement from one class to another should be made only for ability. If a bandman misbehave himself he could be reduced to a lower class, but the vacancy left in the upper class should not be filled unless there be a man in the lower grade fully competent to take his place in the upper.

If necessary for discipline, one of the bandsmen of the first class might be appointed a band sergeant with extra pay of \$5 a month. But with a bandmaster and an assistant bandmaster a band sergeant seems, in the writer's opinion, superfluous.

No arrangement has been made for a drum-major. If such a member of the band be necessary, he should be a thoroughly competent musician, fully able to teach the field music. Let him be drum-major, trumpet-major, bugle-major, according to the field music of his regiment. There may be some of the old graduates of the Military Academy who recall Drum-major Rose, who was considered by General Scott to walk better than any man in the army. Although not above the average height, he was a thorough drum-major because a thorough drummer and

not a mere figurehead. The writer remembers him well, not only on parade but also when he used to have the drummers out for practice. He, with his drum, used to stand in the middle of the circle which the boys formed around him, and any bungling or inattention caused one of the drum-major's drumsticks to come down promptly on the offender's knuckles.

With a man of this sort, respected by the band not only for his military but also for his musical rank, there would be no question of discipline if he were to occupy, in regard to the band, the place corresponding to that of a first sergeant of a company.

We come now to the last but most important element in the formation of a good band—the bandmaster. A thoroughly competent bandmaster will make a better band out of inferior men than will a poor bandmaster out of the very best performers to be gathered together. Music is so far removed from the lives of most people that they can have little idea of the amount of knowledge which a competent bandmaster must possess. He should be an accomplished performer on at least one instrument, and he must have a thorough knowledge of every instrument of the band to such an extent that, if any performer finds a passage difficult, he must be able to indicate a fingering which will remove the trouble; he must be able to say at once whether a sound uttered by any instrument be off pitch and, if so, to correct its intonation; he must be able not only to detect a false note when played, but also to tell at once by which of the performers it was sounded; he must have a thorough knowledge of harmony, and of counterpoint to include at least all the five different species when written in four parts; he must be an expert in instrumentation and orchestration; that is, he must know what each instrument of the band can do, how much of its scale can be intrusted to the ordinary player, how much more can be given to the artist, what kind of melody can be given to this instrument and what to that; he must know how to group his instruments so as to obtain the best effects for sonorousness, shading, contrast and variety; should be familiar with all the figures and devices employed in composition, all the various forms under which musical compositions appear; he should have some knowledge of musical history, and of acoustics, at least in so far as being perfectly at home in all the principles which govern the construction of musical instruments and their performance. Then, too, he must have heard and studied a very large amount of music of every kind, from the most severely classical to the lightest, eschewing

carefully the trivial. Furthermore, if the bandmaster be the right sort of man, he will have a more than fair knowledge of literature, both prose and poetry.

The above is but a very brief summary of the information which a really good bandmaster should possess; to acquire it requires more years than are needed to go through the Military Academy or through a medical school. Music has been the writer's passion from early childhood, and certainly four-fifths of all his spare hours have been given to it, so from his limited knowledge he is somewhat able to realize the education which a really good bandmaster should have. The mere study (reading) is not sufficient; there is the endless practice (writing) which must go on, day after day, month after month, year after year, doing the same task in a dozen or more different ways so as to gain sureness and precision of work. Beethoven wrote the theme of the Andante of his fifth symphony fifty-five times before he was satisfied with the result.

What inducement is the pay of \$60 a month, now given to our principal musicians, to a man having such an education to enter the service? What inducement would the proposed \$100 a month be? Absolutely none. What position would such a man have in the service under existing conditions? None whatever. Granting that he be even a warrant officer, what is that to a man who has the knowledge and ability which should be possessed by a competent bandmaster?

The writer does not know, nor can he conceive, what reason could militate against giving commissioned rank to bandmasters; but this he does know: the position, pay and allowances now given to or proposed for bandmasters will never attract competent men. The education and tastes of a good bandmaster hold him aloof from any of the enlisted force, and his lack of rank will not permit him to associate with officers among whom he rightly belongs; consequently he is doomed to a solitary life or to sink. Music is at least as great an art as any other, in fact, one of our great American sculptors, W. W. Story, in speaking of it in connection with the other arts, says:

Music, the only art to science wrought,
The ideal art that underlies the whole,
Interprets all, and is of all the soul.

Unfortunately, the misfortune of music is that so few, so very few persons are able to understand it; the most they know of it is what they hear in the way of dances, the so-called comic operas,

et id genus omne, ground out by people who are no more musicians than a house painter is an artist, and yet it is by the standard of these that all musicians, even the true musicians, are judged.

There are gentlemen, musicians, who, were the position of bandmaster made one for commissioned rank, would be very willing to enter the service, but whose respect for their art as well as for themselves would not allow them to accept such terms as those now offered or proposed. Furthermore, if bandmasters could have commissioned rank, there is no doubt that a far better class of bandsmen would enter the service.

Everything worth having must be paid for. If our army is to have good bands it must have good instruments, good bandsmen and, above all, good bandmasters. If good men be desired as bandsmen, sufficient inducements to enlist must be offered. These inducements are, naturally, pay and promotion. Enlisted men can be commissioned, and, once become second lieutenants, they continue to rise until retired. Why should not bandsmen be allowed to rise in the same way and under similar conditions to obtain commissioned rank? The service would certainly be the gainer.

Opposition to bandmasters having commissioned rank is to be expected largely from regimental adjutants who now command the band. This command would come by right to the bandmaster, just as the command of a company belongs to the senior commissioned officer on duty with it. But would not the army be better off? The good of the service must be considered before everything else. When, in 1898, the writer submitted to the War Department his report on Military Bands, he noticed that of all the regimental and battalion adjutants in the service at that time "only one claims to have any musical knowledge"; are things any better to-day? How can we expect to have good bands if the men in charge know nothing about them? Yet these officers have the right to dictate what shall and what shall not be played, what music shall be bought and what not, how the band shall be organized, how practice shall be carried on, and so on to the end. No specialist can support dictation on his own subject from one who does not know. Orders would be issued to the bandmaster as they are to the captain of a company, but the details of the instruction and discipline of the band should be left to him, and he be held responsible for any shortcomings. Give the bandmasters commissioned rank; there will be no diffi-

culty found in obtaining for the position men who would be additions to the corps of officers.

The selection of such men will require care in the beginning; the examinations both musical and social must be careful and thorough.

The assistant bandmaster may well be a warrant officer. His pay should not be less than \$100 per month. He will have to be a thoroughly educated musician, although his studies need not have gone quite so far as those of the bandmaster. He should be thorough in harmony and be well founded in counterpoint, be familiar with instrumentation and have some idea of orchestration. It must be borne in mind in selecting the assistant that he is a potential bandmaster and that some day he may be a commissioned officer.

Now, a word as to the recruiting of the band. It is not likely that the United States will ever have such an establishment for the training of its bandsmen as Great Britain has in Kneller Hall. So, for lack of a special school, we must do the best we can.

The first method which presents itself is that of direct enlistment. It is believed that, with increased pay and chance for promotion to become at least assistant bandmaster, a far better class of men will be attracted to the service than that which our bands now receive. Furthermore, if the strength of the bands be increased as proposed, there will be much more to interest a good player than he can find now. The best that can be said of the collections of more or less good or bad performers now allowed by law is that they are but apologies for bands. A band at all worthy of the name cannot be had with twenty-eight men, even assuming them all to be good players. Balance of parts is wholly lacking. A really good musician can take no interest in playing in such an organization.

A second method would be to have a certain number of students attached to the band, as in the French Army, where there are twenty-four to each band, theoretically, but, as a matter of fact, this number is sometimes as great as thirty-five. When the writer made his report on Military Bands, now more than nine years ago, he proposed that "there be attached to each band twelve boys not less than fourteen nor more than eighteen years old, preference being given to the children of soldiers. Let them be enlisted as students, to receive only rations and clothing until the bandmaster pronounces them thoroughly proficient to play

with the band. Should the required degree of proficiency be reached before eighteen, let them be paid until that age at the rate of \$7 a month, and after eighteen, at \$13 a month, or the pay of a private, until they can enter the band as regular bandsmen by the occurrence of vacancies. Until they are eighteen years old the boys should live with their families, if the latter reside on or near the post. The musical education of the boys would be given by the bandsmen of the first class under the direction of the bandmaster."

It might perfectly well happen that all the students of a band would be proficient musicians and the band be at its full numbers. There would be in this case fifty-four performers which would give a margin for the introduction of some outside instruments, for example: oboes, bassoons and horns, which would increase the artistic value of the band. These last instruments would not appear, of course, when the troops were turned out, but they would be very valuable for concerts and similar occasions.

It has occurred to the writer that there might be found among the enlisted men some who would like very well to play with the band. Why should not such men, whose conduct is thoroughly good and who have qualified as marksmen or sharpshooters be allowed this privilege and be excused from police and guard duty, to the extent of one or perhaps even two men to a company? Such a privilege would apply only in garrison; if the troops are sent out on active service, these supernumeraries would be returned to their companies.

To sum up the ideas expressed above, the writer proposes for the organization of the bands of our service the following:

1. One bandmaster, a commissioned officer, second lieutenant for first four years of service; first lieutenant for next six years; afterward captain.

2. One assistant bandmaster, with pay of \$100 per month.

3. Seven bandsmen of the first class, with pay of \$35 per month; fourteen bandsmen of the second class, with pay of \$30 per month; twenty-one bandsmen of the third class, with pay of \$25 per month.

4. Twelve boys as students, under conditions mentioned above.

5. Supernumeraries, enlisted men allowed to serve temporarily with the band as a reward for good behavior and soldierly attainments.

In the matter of rating and for promotion the rule would be:

the best musicians, considering their abilities as performers and their musical knowledge, without regard to the special instruments played, to form the first class; then the remaining musicians according to ability.

Vacancies among assistant bandmasters should be filled by the promotion of bandsmen who have served as such, irrespective of class, for at least two years. Candidates should be recommended by the bandmaster and colonel of their respective regiments.

A vacancy occurring among the bandmasters can be filled only from among assistant bandmasters who have served as such for three years or more, they being recommended for promotion by the bandmaster and the colonel of the regiment to which the candidate for promotion is attached.

Candidates for promotion as bandmasters or assistant bandmasters should be required to pass examinations to show their fitness for the position to which they aspire.

A few practical points in regard to instruments may not be out of place.

Instruments should never be bought by contract. Only the very best to be had should ever be used or allowed in the service. For the same dimensions of the tube and the same mouthpiece, there is absolutely no difference between the instruments of different makers except that which lies in the carefulness and exactness of the work.

The standard international pitch or the A fifty-eighth degree of the general scale of sounds,* giving 435 double or 870 single vibrations per second at a temperature of fifty-nine degrees Fahrenheit, should be adopted for the service. The A, however, is not a convenient sound for tuning from, as almost all the instruments of the band are in B-flat or E-flat; there is no A to be had from the natural tube of an E-flat instrument, while for one in B-flat it is the fifteenth harmonic and consequently inaccessible to all instruments except the horn in low B-flat, an instrument never used in the band. The better pitch then for the band is the B-flat corresponding to the above A; that is the

*The general scale of sounds was devised by Mr. Victor Mahillon, the well-known manufacturer of musical instruments and Director of the Museum of the Royal Conservatory of Music at Brussels, whose writings on all matters relating to instruments are highly appreciated by the musico-scientific world. The starting point of this scale is the C of the octave, known in organ building as the thirty-two foot octave. Calling this sound 1, the successive semitones are numbered consecutively 2, 3, 4, etc. The position of a sound is determined more easily by this scale than by the use of *signs*, which have no origin and which vary from one country to another.

fifty-ninth degree of the general scale of sounds, giving 921.6 single vibrations per second at fifty-nine degrees. B-flat belongs to the natural tube of all B-flat and E-flat instruments.

The best standard of pitch, or *diapason*, is a tuning fork. Its sound varies far less with changes of temperature than does that of a pitch pipe. A standard B-flat tuning fork should be issued to every band in the service.

The use of crooks should be prohibited. All band instruments can be played as readily in one key as in another. The addition of a crook makes necessary the adjustment of the side tubes of all the pistons, an operation so delicate that very few musicians are competent to perform it.

All instruments should be tuned at exactly the same temperature. If two instruments supposed to have the same pitch be tuned, the one in a room having a temperature of fifty degrees, the other in a room at seventy-seven degrees, there will be a difference of pitch of quarter of a tone between them when they are both brought to the same temperature. The ear is not a delicate organ and much is pardoned in music because of the dulness of the ear, but only an ear quite tone deaf* could fail to detect a difference of a quarter-tone.

An instrumental organization for the bands of the army should be prescribed by the War Department and the matter not be left to the whims of bandmasters or regimental adjutants. When the writer prepared his report of 1898, he had before him the organization of all the bands of the army as they then stood. With the exception of three or four, they all bore witness to utter ignorance of the existence of any principle of band organization. While he has none of the organizations of the bands of to-day before him, the writer doubts much from what he learns from persons in a position to be well informed whether they be any better now than they were before.

A word must be said here against the misuse of the word *instrumentation* as meaning instrumental organization of a band. Instrumentation is the knowledge of instruments in their individual capacities, their compass, character, possibilities and what each one is fitted to do. Orchestration is the knowledge of their collective use. Organization, as applied to a band, refers naturally to the instruments of which the band is composed. The use of instrumentation instead of organization has arisen in this case,

*By tone-deafness is meant a defect of hearing analogous to color-blindness in sight. The writer has never met the term, but it seems to him to express the idea which he wishes to convey.

as the same tendency toward the misuse of words has been shown in other cases, from a desire to talk learnedly about simple things. One of the worst, if not the very worst, cases of the misuse of words the writer has ever encountered is the way in which "instrumentation" is employed in this phrase from paragraph 1189, A. R.: "but under no circumstances will more than a complete instrumentation for twenty-eight men be supplied." Now, it may be asked, what under the sun is "a complete instrumentation"? The writer has made a special study of bands for the past fifteen years; he has sought information in all parts of the world, but never, until he ran across it in this paragraph 1189, did he ever hear of an instrumentation. And what is "a complete instrumentation"? Of what is it made? If, for example, the colonel of a regiment makes a requisition for a complete instrumentation for his band, what will he receive? I have been unable to find anything in the regulations which defines an "instrumentation," and much less a complete one. But this use of instrumentation is not to be wondered at when we read in the same paragraph 1189 that music stands are musical instruments. What is meant by the sentence above quoted is, doubtless, that only the instruments required for twenty-eight men will be supplied. But enough of this; a person familiar with bands could write pages of fun from this paragraph 1189 as a text.

Organization has a definite and precise meaning, so why not use that word correctly and not replace it by instrumentation, which means something entirely different.

To sum up, the writer proposes that the bands of our service be composed as follows:

One bandmaster, commissioned, second lieutenant, first lieutenant or captain according to length of service.

1 assistant bandmaster.

7 bandsmen of the first class.

14 bandsmen of the second class.

21 bandsmen of the third class.

12 students.

Drum-major, cooks, etc., additional and not included in the band.

When the moral effects of bands are considered, effects which have been recognized by the great military authorities of the past and which have obtained even greater strength in the present day, it seems hardly probable that the representatives of the nation, seeing its wealth and intelligence, will decline for long to add to its military forces an element so vitalizing, encouraging

and steadying as good military music. The best of men need encouragement from time to time, and especially is this the case during days of fatigue and danger, days of hardship and trial, days of battle, disease and death. An hour of good music by a good band will revive their spirits, renew their energy, restore their morale. A band may be expensive, but everything worth having costs money. A good band is worth to a regiment all that it costs the government to maintain it.



HAVERSACK RATIONS—WHAT THEY ARE AND WHAT THEY SHOULD BE.*

TRANSLATED FROM THE FRENCH FOR THE 2D (MIL. INF.) DIV. G. S.

BY CAPTAIN SAMUEL SEAY, JR., 23D INFANTRY.



THE question of haversack rations is intimately connected with that of lightening the load of the foot soldier. The weight of these rations is, in fact, considerable, since it amounts to two kilos, 780 grammes for every other man; the rest carry from one kilo, 860 grammes, to one kilo, 550 grammes.

This difference in weight is, at the start, an anomaly with rations which must before all be arranged for a single individual, if we would rest assured that each soldier could make use of them in critical moments when he may be called on to consume them. A result of this anomaly is that only one man out of every two carries a can of preserved meat and one out of every five a tin of condensed soup. This division of load involves the hypothesis that losses will be divided equally between soldiers carrying preserved meat and soldiers not carrying it. For, to suppose that a wounded man's comrades will take charge of his rations is a Utopian dream on the battle-field; it will be much if they overload themselves with his cartridges, let alone thinking of carrying his rations, or having time to do so.

But, in any case, is this excessive weight of the haversack rations justified? Does their composition correspond with the object sought after in thus overloading a man with rations which he will forever carry and never consume except in case of extremity; generally during times of crisis, during lulls in a battle lasting several days.

In order to go to the bottom of the matter, let us consider in the first place their composition.

*From the *Armée et Marine*, February 28, 1907.

NOTE.—These seem to correspond nearly to our emergency rations, but this term was not, and should not, have been the haversack ration, being a field and not an emergency ration. No emergency ration includes salt and coffee, etc., given as an equivalent in "Willcox's Military Dictionary," which gives the French phrase under "Vivres."—TRANSLATOR.

Each infantryman carries :

1 tin of preserved meat,	1.230 ks.	or else	1 tin condensed soup,	
			0.310 ks.	or else
2 rations of war bread,	1.200 ks.	or else	1.200 ks.	or else 1.200 ks.
2 rations of rice or dry vegetables,	0.200 ks.	or else	0.200 ks.	or else 0.200 ks.
2 rations of salt,	0.040 ks.	or else	0.040 ks.	or else 0.040 ks.
2 rations of sugar,	0.062 ks.	or else	0.062 ks.	or else 0.062 ks.
2 rations of coffee,	0.048 ks.	or else	0.048 ks.	or else 0.048 ks.
<hr/>				
Total weight,	2.780 ks.	or	1.860 ks.	or 1.550 ks.

The first point that strikes our attention on seeing this simple nomenclature is that the soldier is provided with a complete bill of fare, namely :

Soup,

Meat,

Vegetables,

with salt for seasoning, bread, as usual, and a cup of good sweetened coffee to finish off with. Water being the habitual drink of the soldier, there remains nothing to be supplied. It is simply beautiful, and surely our forefathers who devised this system of provisions so complete and so thoroughly in accordance with our daily habits, must have thought that it was to be made use of by troops operating in a desert and who would live weeks, months, perhaps, on the haversack rations. Thus in order to preserve stomachs they chose articles of food resembling as closely as possible those of our daily meals.

Ever pursued by this nightmare of a desert, they have added to the haversack rations that heavy and cumbersome kitchen outfit called camp utensils, which the infantryman would willingly exchange for a good cooking pot borrowed from the nearest peasant's hut. Since these utensils, to the despair of the Administrative Departments, have been condemned pending the adoption of a standard aluminum model, the latter exert themselves to maintain the supply on hand, so that we may never exhaust it.

The system not only of haversack rations, but also of the utensils needed in their preparation, is necessarily quite another matter with armies called on to wage war in the most highly civilized and thickly populated parts of Europe, possessing the closest network of railroads in the whole world, with the exception of England. Add to this the fact that our troops maintain in their immediate rear a six days' reserve supply of rations in

wagons, in the contingency of the railway's breaking down. Glance at the railways and you will see that unless all our railways are simultaneously interrupted, an army will never be six days away from a railway. Moreover, as soon as a railway is no longer working, a system of wagon supply by regular stages takes its place; at present its efficiency is of a very low order in comparison, but in the near future, with automobiles for heavy weights, the difference will greatly diminish.

It is evident that troops operating under such conditions will never be required to consume their haversack rations in their leisure hours for lack of proper ration supplying; but rather when in the course of battle it becomes impossible to maintain the supplying of rations to units under the enemy's fire during the day, and pushed to contact with him at night.

This will hardly be the time when one can seat himself comfortably at table to make a complete meal, on food containing little nourishment and requiring much time for its preparation and consumption. On the contrary, one must when in the trenches eat food that is strengthening, invigorating, even easy to be eaten and easily digested. This food must be readily carried, lest a man through fatigue be tempted to throw it away in despair. Finally, each man must carry his own rations and no one else's, so that he may eat when he pleases and where he can.

What will be the fate of the unhappy man separated from his comrades, lost or wounded, who has no meat? Of what use will rice or dry vegetables be to the people who cannot cook them? And even coffee! Many of them will not be able to light a fire for its preparation, no matter how rapid be the operation. In any case coffee represents the extreme of kitchen possibilities for the lucky few who are screened from the enemy's view.

Finally, picture to yourself a skirmisher, crouching in a trench and masticating that hard, indigestible, slightly nourishing bread called war bread. Will it compensate him for the fatigue resulting from the carrying of those twenty-four bread-bits so heavy, which weigh a kilo and 200 grammes? He will have to eat rapidly and he will have neither hot coffee in which to soak his *stone bread* nor the means nor the time to break it up.

Our soldier with his haversack rations resembles a traveler who carries his kitchen paraphernalia in the car. In the exceptional circumstances in which he will have to eat it he must eat rapidly food that is very nourishing, easy to be carried and requiring no preparation.

Hence, of all our haversack rations the only article to be retained is the meat, and that with the condition imposed that it be put in individual tins holding each one ration. The rice and the dry vegetables are to remain in the trains, and the man will carry in their place sugar, chocolate, or kola; in a word, food that is very nutritious and which occupies little space.

As for coffee, it is so grateful a hot drink that it will be retained, even though one knows that he can enjoy it only under exceptional circumstances; only this: the sugar that goes with it must be in lumps, so that a man can eat it if he cannot make coffee. While coffee comes ordinarily in the grain, it can be made into compressed tablets, for greater ease in its transport; on the other hand granulated sugar is ordinarily issued instead of lump sugar. Finally, we condemn absolutely the war bread; the difficulty of masticating it, its poorly nutritive qualities are far from justifying its weight and cumbersomeness. It must be replaced by a cracker containing eggs and sugar, which, while weighing less, will be more nutritious and more palatable. Alas! the idea is not a new one; we have been anticipated in this matter by the Germans and the Japanese.

The Germans have, in lieu of the war bread, a cracker made of wheat flour bolted 30 per cent., to which are added eggs, butter, milk, sugar and spices. Result: in 750 grammes of cracker they obtain the nutritive value of three days' bread in an appetizing form, and we in 1200 grammes of war bread have the equivalent of only two days' bread, supposing that we can masticate it.

And remember that our biscuit products are increasing daily, insuring us, in case of mobilization, an indefinite re-supply.

We will come to it, but after numerous experiments. What is necessary is to come to it quickly. The change in the haversack rations will lighten the load of our infantryman and will give him, with small space and less weight, more nourishing food, which he can readily consume in extremity, and which in a word, answers to the end in view in loading the man with a reserve supply of food.

MILITARY BALLOONING.*

AERONAUTICS.



THE attention of officers is invited to paragraph 38, G. O. 128, W. D., series 1906, item 7 of which prescribes "Military Ballooning" as one of the subjects in which officers of the signal corps will be examined for promotion.

The following definitions and fundamental principles concerning aeronautics will serve as a basis for further study of the subject.

Most of the definitions given have been authorized by the Permanent Aeronautic Commission.

"Aerostatics" treats of all devices for aerial navigation which are supported by a vessel filled with gas lighter than air.

"Aerodynamics" treats of all devices for aerial navigation which are not supported in any way by a gas vessel. These devices are also known as dynamic flying-machines.

"F. A. I." is an abbreviation for Federation Aeronautique Internationale, and usually refers to the Regulations of the Federation.

AEROSTATICS.

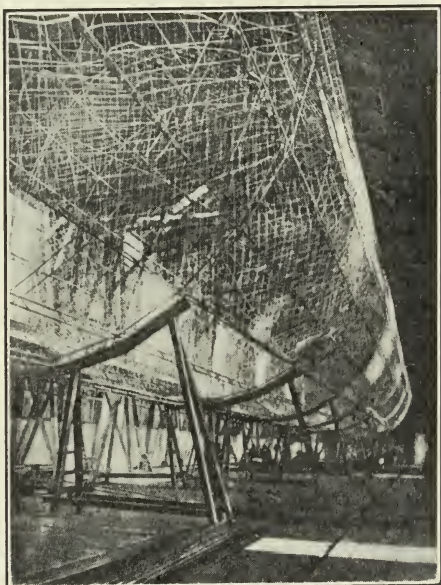
Definitions:

An "Aerostat" is a balloon having no means of propulsion. All free balloons and captive balloons come under this title.

An "Aeronat" is a dirigible balloon.

An "Aeronaut" is the term applied to the pilot of an "Aerostat" or "Aeronat."

"Hangar" is a French word used to denote a building for housing aerostats or aeronats.



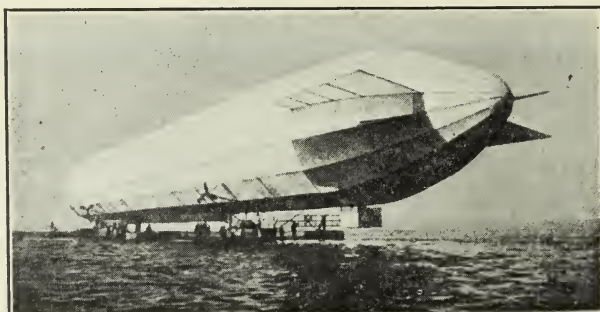
*Signal Corps Bulletin No. 9.

"Aeronats" have been constructed in three types: rigid, semi-rigid and non-rigid.

The *rigid* type is one in which the form of the gas vessel is maintained by suitable framework, which supports the covering in a fixed position.

Count Von Zeppelin's dirigible balloon, illustrated herewith, is the best example of this type. The framework is aluminum; its length is 413 feet; diameter, 38 feet; highest speed record, 38 miles per hour.

Semi-rigid dirigibles are defined as those which have some mechanical means to assist in maintaining the shape of the gas-



Count Von Zeppelin's Air-ship—the Largest and Fastest Thus Far Constructed—Coming Out of Its Shed and Performing Various Evolutions Above Lake Constance

bag. This usually consists of steel tubes, or wooden frame, extending along the lower side of the gas-bag.

The French dirigible "La Patrie" and the German dirigible designed by Major Gross are examples of this class. Although this classification is used by many authors, the semi-rigid title is very misleading; the longitudinal frame is primarily a method of supporting the car by the "short suspension" plan, and the shape of the gas-bag is maintained by the internal pressure, employing ballonets the same as non-rigid types.

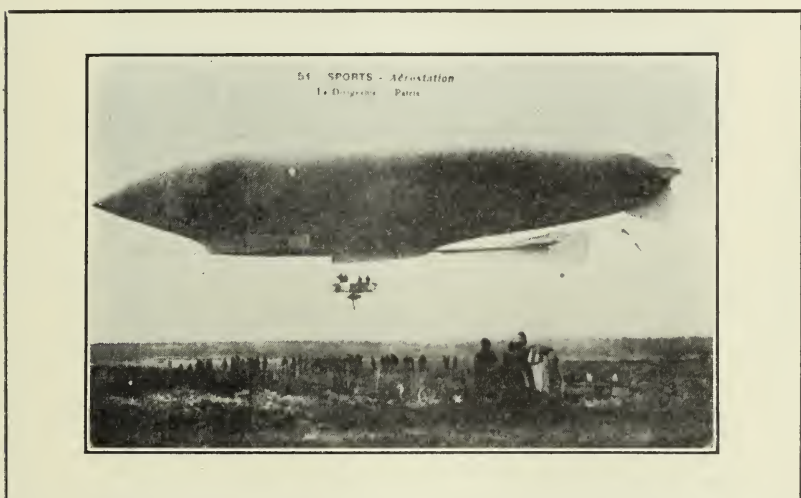
In the *non-rigid* type dirigibles the gas-vessel has no mechanical bracing, and depends entirely upon the interior pressure of the gas to maintain its shape when in motion. All of the small American dirigible balloons and the British dirigible No. 1 belong to this class.

The horizontal and vertical planes attached to dirigible balloons are for the purpose of increasing stability; they serve about the same as "bilge keels" of ships.

A mathematical analysis of the dirigible balloon indicates that future efficiency will be toward larger sizes, for the following reason:

The volume (which means carrying capacity) increases as the cube of the linear dimension, while the surface offering resistance only increases as the square.

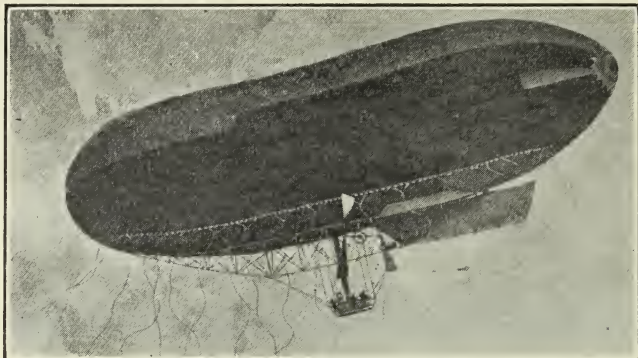
The ascensional force of gases depends upon the specific gravity of the gas, also upon the temperature and barometric



pressure of the atmosphere. A graphic table for finding the ascensional force of gases, with brief instructions for its use, is included as a part of this bulletin.

The proper sizes of valves, neck sleeve, ripping panel, etc., for aerostats, are tabulated and published in books on the subject of the construction of balloons. The International Aeronautic Federation publishes a book of regulations intended to insure the safety of aerostats used in sporting competitions. For balloon races under these regulations, aerostats are limited in size to 2200 cubic meters capacity of the gas-bag. If a balloon is ordered of the 2200 cubic meter size, and upon delivery the capacity is found to be slightly larger, the regulations permit of its use in a race if the increased capacity is not greater than 5 per cent. of the 2200 cubic meters.

Well-trained balloon companies in European armies can unpack, inflate and have a captive balloon 2000 feet in the air in from fifteen to thirty minutes. Before inflation, a captive bal-



MAJOR GROSS' GERMAN DIRIGIBLE.

loon may be considered as having the same mobility as field-artillery. After the captive balloon is up, its position can be changed, but the mobility is reduced to that of infantry.

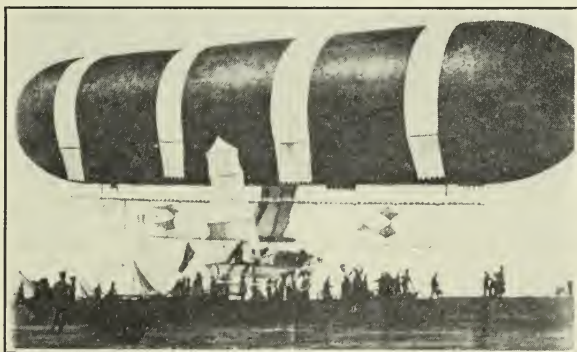


AMERICAN NON-RIGID.

The distance at which observations can be made depends upon the altitude of the balloon, condition of the atmosphere as to smoke and haze, and whether the sun is in rear or front of the line of sight. Experiments by the German Army indicate that

from a captive balloon at an altitude of 1000 meters, weather clear and sun in rear, observers can see satisfactorily for $12\frac{1}{2}$ miles. If the sun is in the line of sight, the distance from which observations can be made is reduced to three miles or less. Other reports indicate that the limit of reliable observation of military movements is about $4\frac{1}{2}$ miles.

Spherical captive balloons cannot be used when the wind is greater than twenty miles per hour. No definite wind velocity can be stated, as the stability of the balloon depends greatly on the amount of ascensional force. The German kite-balloon known as the "Drachen" was designed for use in the high winds.



BRITISH ARMY DIRIGIBLE, NO. 1.

The suspension is so arranged that the wind strikes the under side of the balloon at such an angle that part of its force will be directed to raise the balloon. It is also provided with a ballonnet, and an air-sack at the lower end which acts solely as a steering-bag. The small sails attached, like the tail of a kite, assist in holding the balloon steady. It is claimed that an 18,000 cubic foot "Drachen" balloon, at a height of 2000 feet, would remain steady in a wind of forty-five miles per hour.

AERODYNAMICS.

Definitions:

An "Aeronef" is any flying-machine having no gas vessel.

"Aviator" is the term used to denote the operator of an "aeronef."

"Aerofoil" is the term used by some authors to denote the cause of sustentation, as the wings of a bird, or the planes of an aeroplane.

"Aerodome," as literally translated from the Greek, means "traversing the air;" an "air runner." This word is used, however, by various authors to express different meanings.

Dr. Langley used this word to denote a fully-developed flying appliance, of a definite type, designed by himself. It is used by some writers to denote a large building to house aeronauts or aerostats. Another meaning for this word is "a prepared course for operating mechanical flying-machines."

Three distinct mechanical principles have been employed in the construction of aeronefs. Therefore, these flying-machines may be classified under three heads, as follows:

"Orthopter," or "ornithoptere" (adopted by the Permanent Aeronautic Association, January, 1908), is the name assigned to all flying-machines which are supported and propelled by beating wings. Some authors use the word "Aviplane" to denote the same type.

The "Helicopter" (or *heliokoptire*) includes all forms which are supported and propelled principally by helices revolving in the air.

The "Aeroplane" is a flying-machine which is supported principally by an inclined plane, propelled through the air with sufficient velocity to support it.

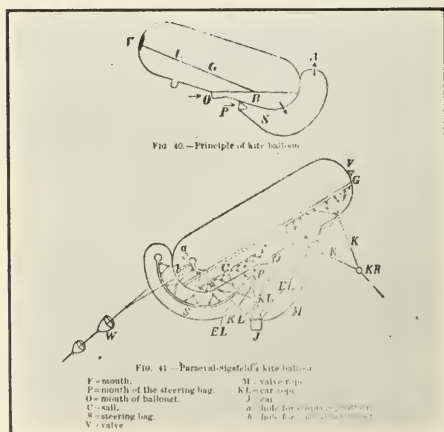
Many inventors are working on the ornithoptere and helicopter types, but up to the present time there are no records of successful flights carrying persons. Some of these have been constructed which will lift their own weight and the weight of one person, but lack of automatic stability has prevented practical flight.

The best aeroplane records are the following: Wright Brothers, October, 1905, twenty-four miles in thirty-eight minutes; Henry Farman, Paris, France, January 13, 1908, one kilometer in one minute twenty-eight seconds.

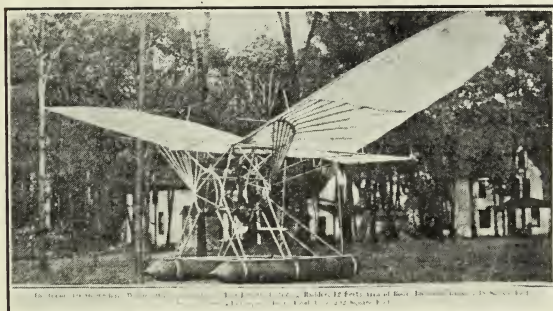
The relation of the dimensions of aeronefs is as follows:

The area of supporting surface (carrying capacity) is proportional to the square of the linear dimensions, while the weight of machinery, heavier frame construction, etc., increases more nearly as the cube.

All mechanical calcu-

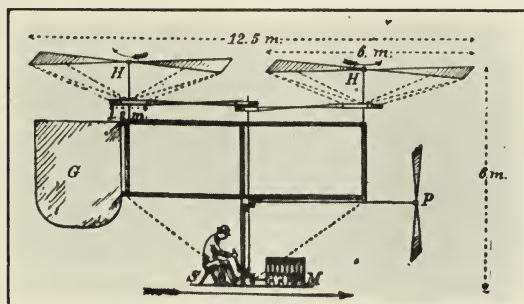


lations for flying-machines (aeronefs), involving the dynamic resistance of the air displaced, employ the well-known formula for kinetic energy— $\frac{1}{2} (MV^2)$ —in which V is the velocity of



THE GORMANETER ORTHOPTER.

the air, or velocity of flight; M , the mass of air, is equal to the actual weight of the quantity of air displaced. As the actual weight of air is variable, depending upon the temperature and



barometric pressure, it is customary to use seventy pounds per thousand cubic feet for mathematical computations.

It is evident that all dynamic flying-machines would be inoperative if placed in a vessel from which the air could be exhausted.

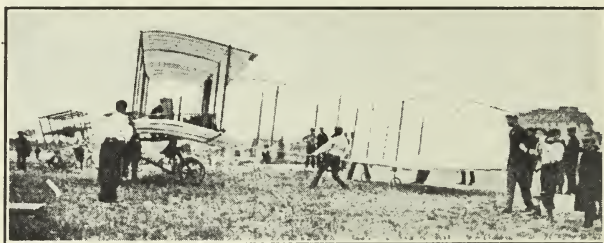
GASES.

The specific gravity of gases expresses the relation between the weight of the gas and the weight of an equal volume of air;

taking air as unity, the specific gravity of all gases used in aerostatics appears as a fraction of 1.

A simple method of determining the specific gravity of a gas is to pass equal volumes of air and the gas to be determined through a minute orifice. Then the specific gravity of the gases will be proportional to the square of the time (in seconds) required for an equal volume to pass through the orifice. The device for making this test is known as the "Bunsen apparatus." Formula: $s_1 : s_2 :: t_1^2 : t_2^2$.

The free balloons used for sporting purposes are usually filled with pure coal gas, having a specific gravity of between .40 and .45. Water gas cannot be used, nor enriched coal gas as



FARMAN AEROPLANE.

commercially produced for illuminating purposes, because of the high specific gravity.

The coal gas for illuminating purposes is manufactured by carbonizing bituminous coal in retorts, from which air is excluded, for a period of about four hours. By leaving the coal in the retort six hours a gas of lighter specific gravity is produced.

Hydrogen has a specific gravity of .0693. It is much more expensive than coal gas, but, on account of its low specific gravity, it has approximately twice the ascensional force of pure coal gas, and is universally used for military aeronautics. Hydrogen permits the employment of smaller balloons, which facilitates transportation and rapid filling.

For military purposes, hydrogen is ordinarily compressed in steel cylinders at considerable pressure. The weight of the steel cylinders containing the compressed hydrogen is less than the weight of iron and sulphuric acid which would be required to

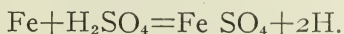
produce an equal volume of hydrogen. The compressed hydrogen method also has the important advantage that it can be delivered into a balloon in a very few minutes, while the generation in the field, by any chemical methods, requires many hours.

A permanent plant of the signal corps for generating and compressing hydrogen is now under construction at Fort Omaha. At this plant hydrogen will be produced by the electrolysis of water. The output of the plant will be about 650 cubic feet of hydrogen per hour.

The following methods may be employed for the production of hydrogen in emergencies, when compressed hydrogen is not available:

Electrolytic Method—Pass direct current through suitable cells, using lead electrodes and a solution of dilute sulphuric acid, or iron electrodes and solution of caustic soda. Electromotive force required is about three volts for each cell. Hydrogen collects at the negative pole.

Iron and Sulphuric Acid Method—Use iron, free from rust, and diluted sulphuric acid. The gas evolved should be cleaned by passing it through a water seal and lime purifiers. The same results may be secured by using zinc, instead of iron. The chemical reaction is the following:



Regenerative Steam and Iron Method—By passing steam over red-hot iron, the steam (H_2O) is dissociated, the oxygen combining with the hot iron to form black oxide of iron (Fe_3O_4), leaving hydrogen free. The iron is then regenerated by blowing hot water-gas, containing a large percentage of carbon monoxide (CO), over the iron. The black oxide gives up its oxygen and becomes heated. The oxygen, combining with the carbon monoxide, becomes carbon dioxide (CO_2). This process may be made continuous by using two ovens.

Calcium Hydride Method—Calcium hydride is a substance known commercially as *hydrolith* (CaH_2); when dropped in water it evolves hydrogen rapidly by the chemical reaction:



The objection to this method is the excessive cost, being about seventy cents for sufficient hydrolith, to produce fifteen cubic feet. Modifications of this method are similar chemical com-

pounds known as "hydrone" and other trade names, having sodium as the base, instead of calcium. With these great care is necessary to prevent the ignition of the hydrogen by the heat of the chemical reaction.

Aluminum Method—The Russian Army has portable outfits by which hydrogen is generated from the chemical reaction of caustic soda and aluminum.

SIGNAL OFFICE,
April 22, 1908.



A STAFF-OFFICER'S JOURNAL OF THE VICKSBURG CAMPAIGN, APRIL 30 TO JULY 4, 1863.

BY LIEUT.-COL. J. H. WILSON, INSPECTOR-GENERAL, U. S. V.

[THE following is from a daily journal of events during the Campaign of Vicksburg, kept by Lieut.-Col. James H. Wilson, U. S. V., Inspector-General on the staff of General Grant (now Brigadier-General, U. S. A., retired), the original manuscript of which was recently discovered by General Wilson among some old papers of the Civil War period.

This record is interesting on account of the side-lights it throws upon the movements of both armies, and the local conditions existing during the famous siege—an important addition to the official record and invaluable to the historical student.

It is here published (by permission of the author) for the first time.—THE EDITOR.]

Landing at Bruinsburg good, but the field subject to overflow at very high stage of water. Road good, running along Bayou Pierre $2\frac{1}{2}$ miles, till the hills are reached. Hills steep, covered with dense growth of forest trees; road enters through a defile which could have been easily defended. Mrs. Daniels' place quite level, and would afford fine camp or position for defense.

From Daniel's to Shaffer's place, where the battle of May 1st was fought, the road is quite tortuous, but passes over a rough country, considerably cultivated but grown up with magnolia, oaks, canebrakes, etc.

Streams all contain good water, good crossings.

May 1.—At 7 A. M. heard cannon firing. General Grant went to front, found McClernand engaged, but driving the enemy. Battle lasted till night. Enemy completely driven off.

Prisoners state their number to have been four brigades, 11,000 or 12,000 men, commanded by Bowen, Tracy (of Stevenson's division), Baldwin and Green. State also that they had taken up their position at the battle-ground late on the night of the 30th of April, were fatigued, and poorly fed.

Were expecting re-enforcements of 10,000 men under Loring.

Learned of Grierson's cavalry exploits and the trouble he had given the rebels. Expect to hear from him soon and perhaps see him here.

Enemy apparently disheartened. Tracy killed.

May 2.—Entered Port Gibson, enemy had burned bridge across South Fork of Bayou Pierre, as well as the two bridges near the railroad crossing.

MAP OF THE VICKSBURG CAMPAIGN

Scale: 10 miles to one inch.



Obtained telegram from Bowen, saying he had been compelled to fall back after a determined effort to hold his own. Ammunition exhausted. Telegram from Pemberton saying ammunition should be sent in due time.

Learned from contraband that South Fork of Bayou Pierre could be forded three miles above. Sent Smith's Brigade (Third Division) by that crossing. Enemy apparently divided between Port Gibson, Willow Springs Road and Grand Gulf. Appeared ready to resist crossing at lower bridge.

Raft bridge made by 4 P. M. Materials from houses torn down. McPherson crossed at once.

At North Fork, found bridge set on fire 11 P. M. night before—examined stream, found good ford for infantry—urged immediate crossing and occupation of Willow Springs.

Repaired suspension bridge by 5.30 A. M.

May 3.—Troops crossed—met resistance within one mile—enemy apparently occupying hills in front of Willow Springs in considerable strength. Position recent. McPherson sends word that they were intrenched in rifle-pits—did not advance till about 9 A. M.—at 10 A. M. arrived at cross-roads near Willow Springs—found neither rifle-pits nor enemy.

Rode with Grant to Grand Gulf—found navy in possession. Batteries blown up 3 and 4 A. M.—garrison covered in marching out by troops at Willow Springs. The garrison left Grand Gulf about 8 P. M., evening of 2d. Whole force except small body of 1200 or 1500 men crossed at Hankinson's Ferry.

May 4, 4 A. M.—Arrived with General Grant at Mrs. — house near Hankinson's Ferry.

Enemy reported fortifying opposite. Negroes say he is in considerable force towards Redbone Church. Loring probably arrived. Rumors of evacuation of Port Hudson.

May 5.—Reconnaissance toward Rocky Springs by Captain Hickenlooper*—rebel pickets at that place—cavalry.

May 6.—Reconnaissance, Ulffers†—enemy at Hall's, Hamer's and Baldwin's Ferries, and also said to be in telegraph road near the railroad crossing of Big Black.

May 7, 8 and 9.—Reconnaissance toward Newland's Mills (front)—Burtonton, Utica, Cayuga and Auburn—rebel cavalry pickets encountered northward all along river, covering Edward's Station, Bovina—fortifying at Edward's and Bovina. McClernand at Big Sandy.

May 10.—Moved to Cayuga; McClernand to Five Mile Creek, 2½ miles beyond—water good, plenty—corn sufficient—cattle abundant—creek rather deep but little running water—bridge partly destroyed—repaired.

*McPherson's chief engineer.

†One of my civil assistant engineers.

Five miles from Rocky Springs to Hankinson's Ferry and Hamers.

10	miles from	Grand Gulf to	Willow Springs
8	"	"	" " Port Gibson.
10	"	"	Port Gibson to Willow Springs
8	"	"	Willow Springs to Rocky Springs
10	"	"	Rocky Springs to Cayuga
2½	"	"	Cayuga to Hall's Ferry
8	"	"	" " Utica
5	"	"	" " Old Auburn
3	"	"	Old Auburn to New Auburn
7	"	"	" " " Baldwin's Ferry
7	"	"	" " " Utica & Raymond Railroad
10	"	"	New Auburn to Baldwin's
14	"	"	Old Auburn to Edward's Depot
9	"	"	" " " 14 Mile Creek
10	"	"	" " " Raymond
8	"	"	Raymond to Clinton
9	"	"	Clinton to Jackson
8	"	"	Raymond to Bolton
12	"	"	" " Edward's Depot
15	"	"	Utica to Raymond
20	"	"	" " Crystal Springs.

Brookhaven school of instruction for conscripts broken up by Grierson.

Very little water on Cayuga, Utica and Raymond Roads, except that in ponds. Country poor, hilly—tolerably well settled—cattle, sheep and corn yet on hand in fair quantities.

Map and dispatch sent by Captain Russell, commanding Hinds County scouts, captured—estimates our entire force at from 20 to 30,000 men, reconnoitered us while on Big Sandy—had his scouts at "College"—professed to watch more closely on the next night, sent map from which distances above were taken.

Rebel newspapers speak of a Rebel victory on Rappahannock—that Forrest had captured Strait's cavalry, near Rome, Ga., and Bowen driven us back from Hankinson's Ferry on the 4th, after four hours' desperate fighting.

May 11th.—Reconnaissance, Lieutenant-Colonel Wilson, through Utica to cross-road, four miles beyond on Raymond Road, found McPherson just moving. No enemy in that direction—few pickets seen yesterday.

Road from Cayuga, crossed two miles this side of Utica by road from Rodney to Old Auburn—road on high ridge—little water—plenty of stock.

Cross-road from Old Auburn to Utica and Raymond Roads, four miles from Utica, another parallel, three miles further on, coming in probably at New Auburn. It will be easy to communicate all along between the two roads meeting at Raymond.

Civilian, probably well disposed and for the Union, at all events honest, says, no rebels this side of Fourteen Mile Creek. Heard Gen-

eral Featherstone was at Baldwin's Ferry; thinks the rebels intend to make their big stand at Edward's Station and Bovina—heard they were fortifying at latter point—from best information he can get thinks they can't concentrate over 30,000 men anywhere in Mississippi—heard Port Gibson was evacuated; heard it doubted—heard that Beauregard was coming with 15,000 men; only rumor—heard Forrest and Van Dorn were coming—doubts both. Thinks people are tired of the war—that its managers resort to every lie and deception to spur up the people. Thinks Governor Peters and his co-workers will be first to desert the sinking cause; has heard complaints of lack of provisions—an officer in search of stores visited the country toward Utica yesterday. Found none.

Letter from quartermaster's employee at Jackson, dated 7th, says: "We have sent all stores East and are ordered to skedaddle at a moment's notice—had not gone yet but were ready—spoke of a 'glorious' victory East—Stonewall Jackson lost an arm."

Letter from a young man at Edward's Depot, Featherstone's brigade, speaks of lack of provisions and camp equipage; inveighs against his general. Says of old Featherstone: "He has no humanity about him, his head is as flat on top as an African negro's and he's as mean as the devil wants him to be." Adds: "Things look rather gloomy at this time (5th) but I hope it will alter soon, so as we can rest a while and get something to eat—this is all the cry among the troops. We left Grenada at 7 o'clock P. M., arrived in Jackson the next morning and got to Vicksburg at night, took off our things and then were ordered on to the cars and came back to Edward's Depot leaving our things at Vicksburg."

Rebel newspapers. Hinds's County, *Gazette*, May 6:

"We infer a panic exists south of us. Drove of negroes, mules, etc., are passing through our village—stamped—appears to have seized some of our citizens who have already started with their property. Georgia and East Mississippi appear to be favorite regions.

"Village alive with exciting rumors. Monday a very gloomy day—enemy reported at Edward's Station, Auburn, Cayuga, Rocky Springs—reassured by report that we were no nearer Raymond than Port Gibson—that the enemy were hugging Big Black—that Bowen was gallantly fighting him—that Bowen had received large re-enforcements with which he could hold the enemy until the arrival of the heavy re-enforcements expected from other quarters."

Companies raised in Raymond since war:

First Raymond Fencibles, Captain Taylor, between 50 and 60 men.

2. Hinds's light guard, Captain Elliott.

3. Raymond (60 day) minute men, Captain McConn.

4. Charlton Rebels, Captain Charlton.

5. Company A, Mississippi State troops, Captain Bradley.

6. 90 day cavalry, Captain Hall (one-armed).

Third Mississippi Regiment, Colonel Mellon, Downing rifles.

J. J. Birdsong has a ferry over Big Black a few miles from Brownsville.

Repairs of damage done by Grierson on Southern Railroad completed on 1st.

System of mounted gunmen recommended by Governor Peters.

Beginning to realize—and realization daily on increase, that “this would be a splendid time to die.” Our country has been pressed for minute men, pressed for horses and mules, “and soon will be pressed to pay the new Confederate tax. All that will be necessary, after the tax is paid, will be for the Yankees to pass through.”

Avoiding the conscription of horses.

Snyder's Bluff, thirteen miles northeast by land from Vicksburg. Chickasaw Bayou on road to Snyder's Bluff, seven miles from Vicksburg.

Warrenton is eleven miles south of Vicksburg—strongly fortified. Grand Gulf, twenty-two miles from Warrenton.

Long train of army-wagons heavily loaded with supplies, passed through Raymond for disputed ground near Port Gibson on 3d.

Grierson destroyed on New Orleans Road twenty-one bridges, great and small between Brookhaven and Summit—it will take four or five weeks to repair.

Appeal, of May 2d, says: “We learn that the enemy is advancing upon Woodville, in Wilkinson County, thirty or thirty-five miles from Port Hudson. The citizens were said to be arming.”

Organization of “gunmen” to guard road between Jackson and Clinton.

Post office in Hinds's County.

Jackson,	17	miles from Raymond.
Brownsville,	16	“ “ “
Clinton,	8	“ “ “
Bolton's Depot,	8	“ “ “
Edward's Depot,	10	“ “ “
Auburn (New)	10	“ “ “
Cayuga,	17	“ “ “
Utica,	19	“ “ “
Tallahala,	12	“ “ “
Dry Grove,	10	“ “ “
Terry,	14	“ “ “
Byram,	12	“ “ “
Cooper's Wells,	4	“ “ “
Spring Ridge,	6	“ “ “

Reconnaissance of Captain Prime, U. S. Engineers—reports enemy's pickets at forks of Raymond and Edward's Ferry Road between Old and New Auburn—thinks a fight would be brought on by advancing toward Edward's Depot.

Letter from Edward's Depot May 10th, says: “Our infantry forces

are fortifying as they advance—cavalry making raid—confirms the report about planters moving to Georgia and Alabama.”

Says: “Several thousand South Carolina troops arrived here a few days ago.”

Stores and supplies are being removed from Jackson to Vicksburg; speaks of “several millions of rations” among other things, so as to enable Vicksburg to stand “the Yankee siege.”

Said to be plenty of wells and good water at Raymond.

The troops said to be advancing on Woodville, are supposed by the Rebels to belong to Grierson's and Banks's commands.

Soil of this country light, thin and sandy, washing very readily into deep ravines—eocene, post Tertiary.

Port Gibson, rich village of nearly a thousand inhabitants.

Willow Springs, Rocky Springs, Old Auburn, Cayuga, Utica—smaller and much poorer.

Sherman at Auburn writes he will be ready to move by daylight—urges necessity of watching Hall's Ferry—sends company of cavalry to assist regiment of infantry near that point.

Man in from beyond Edward's Station, has been a soldier, says the Rebels have from twenty-five to 30,000 men, but people of the country feel that the game is about up.

Says also: “Generals Green and Featherstone with their brigades are at Edward's Station—places for batteries but no guns in position. Speaks of no more troops, but negro says two train-loads arrived yesterday.”

Country gently ascending and open from Fourteen Mile Creek to Edward's Station—same from Edward's Station to Big Black Bridge—no corn except inside of enclosures.

Trestle-work and bridge two miles long or near it—bridge sixty feet high and one span—valley all on east side of river. Country between Big Black and Yazoo much broken.

Memphis Appeal of 8th says: “It was currently reported in the city last night that Warrenton was evacuated, but this report is premature. The city is strongly fortified and will doubtless be attacked from above and below and perhaps in front—that General Grant's army from South will cross the Big Black and advance by way of Warrenton, where they will form a junction with the gun-boats—that however they'll find us fully prepared.”

Our advanced cavalry, Second Illinois, within a mile of Fourteen Mile Creek—some skirmishing—nothing definite. Enemy supposed to be in strength about one mile this side of Edward's Station.

Citizen says: “Lost 400 killed and about 1000 wounded and missing at Port Gibson.”

McClermand reports his cavalry pickets met enemy's pickets on telegraph road, half mile from Fourteen Mile Creek, in too strong force to

allow party to proceed—negro says they told him they intended to offer strong resistance, but McClernand adds: "I do not think he is in strong force there."

Reconnaissance on Raymond Road met enemy's pickets who ran; but little water between here and Fourteen Mile Creek, so will have to fight for the possession of that stream.

McPherson moves forward 4.45 P. M. to a point from $3\frac{1}{2}$ to four miles further toward Raymond. Sends *Memphis Appeal*, 8th and 9th. Says: "It is not contraband to state that the re-enforcements promised from Charleston are arriving—and will continue to come as fast as the roads will bring them. Governor Peters is taking every step to fortify and defend Jackson. Prospects are brightening." In high glee over the reported defeat of Hooker; Rebels confidently claim a substantial victory.

Citizen of Holmes County says: "A general impression prevails in the county that Pemberton has received instructions from Davis to hold the river at all hazards, and that re-enforcements would be sent from the East."

Road from New Auburn to Baldwin's Ferry good—wide; some water in pools at different points, mostly near Auburn.

Road from Old Auburn to Edward's Depot, good—hilly near Auburn and to within one mile of Fourteen Mile Creek. Wide, gentle slope on the south side, fields open two miles to west; three-quarter to east; one-quarter wide; creek lined with trees—large field said to be on north side.

Road from Cayuga to Edward's Depot crosses road just described, $3\frac{1}{2}$ or four miles from crossing of Telegraph Road, near Montgomery's Church, and crosses Fourteen Mile Creek at Montgomery's Bridge—good road so reported.

A. J. Smith moves by this road.

Osterhaus at crossing of Telegraph Road and Auburn—Baldwin Ferry Road, ready to go in any direction.

Road from New Auburn to Raymond good—one mile beyond Auburn country becomes very flat—pine, post-oak, etc.

Sherman on this road met enemy's picket on Fourteen Mile Creek a short distance above Turkey Creek, sharp skirmishing, but crossed without difficulty.

Col. Clark Wright, Sixth Missouri Cavalry, reports (May 11th) that he had reached the New Orleans and Mississippi Railroad, $1\frac{1}{2}$ miles north of Crystal Springs; destroyed the telegraph line, burned three bridges, 125 bales "C. S. A." cotton, paroled eighteen citizens, captured fifteen prisoners and a number of mules and horses.

Says: "Within the last ten days they have called in all the forces to Jackson from the surrounding country. I learned that some 4500 troops had gone to Jackson from Port Hudson, within the last four days on the railroad and about the same number by land or marching.

Rebel newspaper of 9th says in a letter dated Vicksburg, 5th, that Grant will probably attack as indicated previously, following line of river.

Dispatch from R. E. Lee, to J. Davis—saying, "After driving Sedgwick across the Rappahannock, I returned to Chancellorsville, with the intention of attacking Hooker's fortified position—was delayed by heavy rain on 5th—found Hooker gone and his entire force on the farther side of the Rappahannock under cover of his batteries. This without the loss of any more prisoners." Dated Chancellorsville, May 7th.

3.15 P. M.—Towner returned to headquarters beyond Fourteen Mile Creek on the Raymond Road with the information that McClernand had crossed his advanced guard without any loss, but "did not intend to cross his entire corps till it was all in supporting distance, for fear of bringing on a general engagement."

An order published in Jackson paper of 9th, directing Maj. J. L. Morgan to repair to Jackson and attend forwarding supplies for the Trans-Mississippi Department. This will be interfered with by our operations.

Banks said to be retiring from Red River country.

Six miles from Raymond the road turning square to the right is excellent all the way to Raymond.

McPherson met the enemy two or three miles from town—after sharp fight drove him from the field and captured the place—probably about 3500 to 7000 Rebels—Logan's division did the work.

Road from New Auburn to Mr. Dillon's house about $4\frac{1}{4}$ miles—Raymond.

New Auburn has a frame church with hall over it—two dwellings and a store—one, Colonel White's, the other —. A road runs from them to Baldwin's Ferry—road to Raymond good, clay road, with bridge twenty-five feet long over creek about 225 yards from town, ground on both sides undulating without much depth to hollows. Open field on both sides for about a mile—another wooden bridge thirty feet long, one-half mile from town—at one mile from Auburn strikes a wood—goes directly through without bending much for a mile and a quarter—road to Utica (twelve miles to Utica) leads off to the right, at $8\frac{1}{4}$ miles from Raymond Road leaves wood, open field to the right (meadow)—crosses creek—bridge burned. Skirmish here on the 12th. Pond here, good water for horses—good deal of good water in creek, $1\frac{3}{4}$ miles farther to Dillon's (General Grant's headquarters, night of 12th), wood on right-hand side, pasture and corn-field on left—pond at Dillon's.

An officer in charge of picket at Baldwin's Ferry says: "A road from this place to Cayuga and one to Auburn, another to Edward's Depot; a small force of Rebel cavalry on this road on 10th."

The enemy have pickets in sight on the other side of the river, and either two or three brigades, a short distance back.

A citizen here in whom we have confidence, said he had been informed two days ago that as our army moved North, the Confederates

would move South on the other side of the Big Black, cross a strong force either at Hall's or Hankinson's and cut our communications.

Our pickets think from words heard last night, that the enemy was moving southerly, perhaps in considerable force, early this morning. We have rumors of a military road on the other side of the Big Black, running nearly parallel to the stream from the railroad bridge. Heard a small force of the enemy had crossed at Hall's Ferry last night.

There are roads between the river and Natchez trace by which the enemy might throw forces in our rear, either from a point on the railroad above or from one of the ferries below.

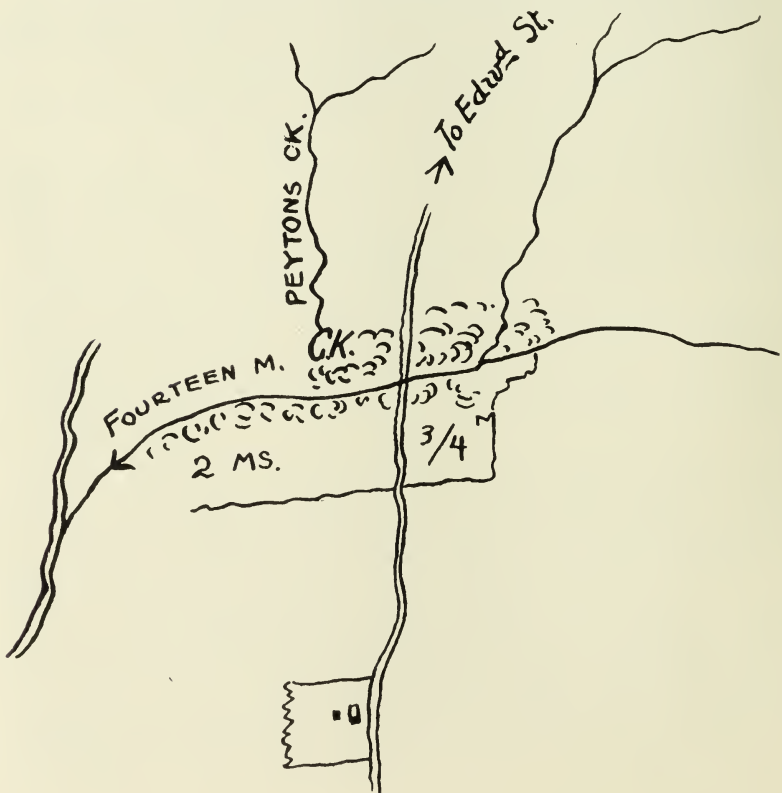
I. BRUMBACK, Lt.-Col. 95, O. V.

McPherson took 186 prisoners to-day, besides the seventy-five wounded found in town—but lost between fifty and sixty killed and 180 wounded, none missing.

McPherson ordered to move early in morning to Clinton—Sherman to Raymond and McClernand to follow Sherman on same road.

May 12.—Reconnaissance—McClernand's cavalry advance—drove Rebel pickets to Fourteen Mile Creek—Hovey's advanced guard occupy the ground.

The following is an approximate representation of the position:



May 13.—Communication opened between McClernand and Sherman by road parallel to and on north side of Fourteen Mile Creek. Good road.

Arrived with headquarters at Raymond 9.15 A. M. Found McPherson there still—Sherman's advance fully up.

2.10 P. M.—McPherson five miles forward on road to Clinton—all well. Delayed by train blocking up the road. General Tuttle began the march by 2.15 P. M. to take the right-hand road via Mississippi Springs to Jackson.

Two deserters in from Springs—report General Gregg about 3000 strong at that place, re-enforced by troops, brigade from Jackson.

Report that the Rebels were fortifying at Clinton.

7.15 P. M.—Orderly from McPherson at Clinton sends dispatches:

Headquarters, 17th A. C.
Clinton, Miss., May 13, 1863.

MAJ.-GEN. U. S. GRANT,

Commanding, Department of Tennessee.

General: The advance reached this place about 3 P. M., meeting with no opposition except a little skirmishing with cavalry—captured three of his dispatches from Pemberton of this date, and about 250 sacks of corn, etc.

Very respectfully,

Your obedient servant,

J. B. McPHERSON,
Maj.-Gen.

MAJ.-GEN. LORING, Bovina

The enemy with infantry and cavalry are reported advancing upon Edward's Depot. Take your position at the bridge or Edward's Depot whichever you may deem best. You must hold bridge. Do not allow any ammunition to fall into the hands of the enemy at the depot.

J. C. PEMBERTON,
Lieutenant-Gen.

BRIG.-GEN. GREGG,

Raymond, via Clinton, by courier.

Do not attack the enemy until he is engaged at Edward's Depot or Big Black Bridge. Be ready to fall on his rear or flank at any moment; do not allow yourself to be flanked or taken in rear—be careful that you do not lose your command.

J. C. PEMBERTON,
Lt.-Gen. Com'g.

(From Bovina, doubtless.)

Edward's Depot,
May 12, 1863, 2½ o'clock, P. M.

BOVINA, GENERAL BOWEN:

Enemy advancing in force, cavalry, infantry and artillery, only three miles from the depot. Send re-enforcements.

E. GATES, Commanding.

Edward's Depot, 12th.

CAPTAIN SAM O'NEILL:

Your note at hand.

General Bowen's division wagon-train has just been ordered away from here. They pressed some of our corn. Federals three miles from here, 44.

W. O. HANISON.

COLONEL GATES,

Edward's Depot, Bovina:

It is not intended to reinforce you; fall back to road entrenchments when too heavy pressed. You are acting merely as picket.

JOHN J. BOWEN,
Brig.-Gen'l.

Bovina, May 13, 1863.

BRIG.-GEN'L GREGG,

Clinton:

You must not attack the enemy in superior force, but fall back if necessary to Jackson and occupy entrenchments.

Forces now there and arriving will be kept for defense of that place. If enemy fall back you will advance on his flanks and rear, taking care not to get into a position to be captured.

J. C. PEMBERTON,
Lt.-Gen. Comd'g.

6 P. M.—Sherman writes from near Mississippi Springs—captured three prisoners; cross-roads six miles to Clinton.

Road narrow and closely wooded.

Reports brought in by signal corps that fifty or sixty wounded Rebels were found at Clinton. Negroes all say force in Jackson is small, though actively engaged in fortifying.

A wild report that "Beauregard with 15,000 men is at Jackson to reinforce Johnson."

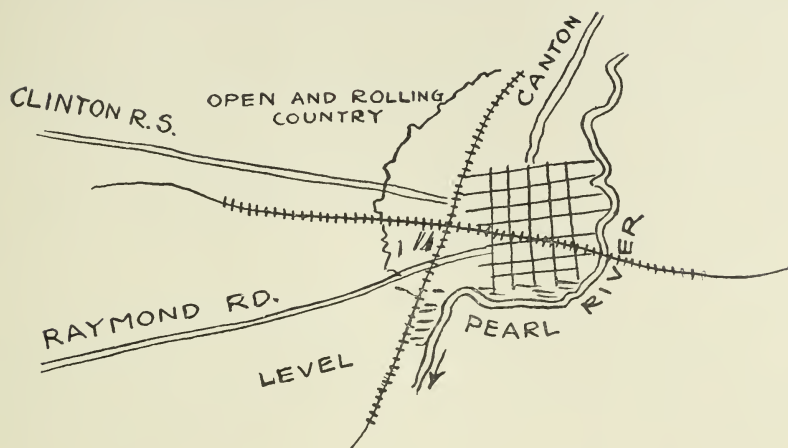
Sherman, 8.50 P. M. acknowledges receipt of order, directing his movements for to-morrow. Sent in prisoner who reported as follows:

Belong to Fiftieth Tennessee, private. Conscripted March, went to Knoxville, thence to Port Hudson—his regiment and balance of Gregg's brigade left Port Hudson under orders on 2d, arrived at Jackson on Saturday the 9th, camped on northeast side of town, on Sunday, rested; Monday ordered down to Raymond, and all troops in town marched out, not to exceed 5000 men.

After battle at Raymond, fell back to Springs and were re-enforced by a brigade of Georgia troops who looked well and seemed in high spirits.

One mile this side of town, on left-hand side, a breastwork, extending from railroad to railroad and on around toward northwest side of town—narrow ditch—ordinary rifle-pits.

Following represents his idea of the place:



Thinks it is open on north and south side and knows nothing to prevent an advance in that direction. Saw no cannon, but some balls.

Don't think more than a thousand men were actually engaged on Rebel side.

McPherson received his orders 9.30 P. M.

May 14.—General Joe Johnston reported at Jackson yesterday—McPherson writes 5 A. M. that this corps was on march, one whole division on the road by 5 A. M. Thinks Joe Johnston had arrived and collected a pretty "good force."

Prisoner captured this morning in skirmish which was begun by Sherman's advance between 10 and 11 A. M. Says he belongs to the First Georgia Battalion (Shauf's) Brigade of W. H. S. Walker, left Savannah on May 5th by cars; arrived at Jackson on Sunday morning last.

Heard that Johnston had arrived from Mobile—Gregg, Walker and Johnson are the only generals they have.

Prisoner from Forty-first Tennessee, Colonel Ferguson, commanding, belongs to Gregg's brigade.

McPherson began the fight on the Clinton Road about 10, a little before Sherman—march well-timed.

Report from Blair and wagon-train favorable.

Reconnaissance to the southeast found the town unoccupied.

3 P. M.—Entered the city of Jackson, Johnston having succeeded in extricating his command by the Canton Road.

General Johnston last night sent three different couriers to Vicksburg with positive orders for Pemberton to march out and attack us in the rear.

Force of two or 3000 men looked for by Rebels from East. Supposed

that Johnston will try to form a junction with them first and afterward with Pemberton.

The evacuation of the town by Rebels handsomely done; two batteries with no supports, placed on the roads behind rifle-pits, kept up heavy fire while the main body retired toward Canton by northern road.

McPherson's fight on the right very fine. Crocker behaved splendidly, charged with whole division. Loss pretty heavy.

Two hours before we entered works, a huge volume of smoke was seen rising from town—evidence of the enemy leaving—depot burned.

Found a large quantity of sugar.

Weather heavy and unfavorable with great deal of rain, since last night, 6 p. m.

May 15th.—Weather improving, prospect of clearing off—clear by 8.

McClelland writes he has made his dispositions in accordance with orders. Hovey, Osterhaus, Carr to Bolton; Smith toward Edward's Depot.

McArthur writes from Oakley Course, enclosing following letter:

DEAR FRIEND: Monell is attending to matters; seven of yours and six of mine went off.

Grant's rear will certainly be cut off. We want him a little further.
H.

This dispatch was sent by a Captain Hains to a Captain Lytle, both of Rebel Army, but at home on leave, and General McArthur thinks was intended to fall into our hands.

Blair and Ransom are close behind.

Citizens say that Edward's Depot is being evacuated; a woman living three-quarters of a mile to the left of Bolton says several hundred Confederate troops passed on the road to Vicksburg from Edward's Depot this morning. No enemy near Bolton.

A rumor brought in by Col. Clark Wright, that 20,000 Rebels had crossed the Big Black to attack us.

Two good roads from Clinton to Vicksburg, one north of railroad, the other south, and both within two miles of Bolton. One crossing at Smith's Ferry, the other at Bridgeport.

Large quantity of stores destroyed at Jackson.

Cavalry returned from east of Pearl River, having gone only nine miles—reported that Rebel troops were on the road at that point.

May 16th.—William Hennessey left Vicksburg yesterday; wants to go to Jackson—has been employed as baggage-master on the railroad—came to Edward's Depot on the cars, then took it on foot; seems well disposed. Says:

"The entire Vicksburg force with the exception of a small garrison, 4000 or 5000 strong, moved out from behind the Big Black by way of the railroad and Smith's Ferry, and last night at 7 were near Edward's Ferry and advancing.

Don't think they have over 25,000 men. Has frequently heard officers passing on cars, talk—and this is the general estimate. General Pemberton was with them. Have some entrenchments, rifle-pits on this side of the river. Our troops were at Baker's Creek Bridge. General Smith at Vicksburg. Generals Taylor, Stevenson, Loring, Bowen, Baldwin, Featherstone and Green were there.

Heard a private say they had six months' provisions at Vicksburg—don't believe it.

A stern-wheel steamer, with wheel down is lying across the Big Black and is used as a bridge. They have but two locomotives and few cars.

Peter McCardle, a brakeman on the railroad, left Vicksburg 4 P. M.

Dana,* day before yesterday—came yesterday from Bovina to Edward's, heard some men say they thought there were 20,000 soldiers at Edward's, doesn't know how many are in Vicksburg, but can't be many left—a large number arrived at Edward's yesterday. General Pemberton is there. Heard that General Johnston was in Jackson. No fortifications at Edward's that he sees, but at the Big Black Bridge there are rifle-pits and some cannon scattered about—there are also batteries on the west side of the river—an old flat boat is used as a ferry near the bridge—there are two or three steamboats below the bridge which can be seen from the train. They are about 500 yards below the bridge. On the east side of Vicksburg there are no rifle-pits, but there are a sort of round holes with cannon. Most of the citizens of Vicksburg are there. There are no fortifications between the bridge and the town.

May 15th, 7.40 A. M.—Moved from Clinton, General McPherson having written that General Grant's immediate presence at the front was desirable.

10.15 A. M.—At Champion's plantation on the Edward's Ferry Road, two miles from Baker's Creek, found Hovey's division drawn up in line of battle on a crest of land each side of the road. It was reported by scouts and citizens that the enemy was in force toward the southwest and that his left, in front of us was apparently retreating. Our skirmishers were lying within sixty yards of his.

11 A. M.—General Hovey reports that the rebels have planted a battery on a height commanding our position. General Grant wrote to McClernand ordering him to close up his forces and communicate with Blair. Osterhaus is two miles off on our left.

11.15.—Logan came up with the head of McPherson's column—the firing of skirmishers is becoming pretty smart. Lieutenant Hains from General McClernand reports that Carr's division is close behind Osterhaus and that A. J. Smith and Blair, with Ransom are close at hand. A letter from Sherman announces that he is moving up as rapidly as possible.

12.15 P. M.—First cannon heard—not repeated.

*Journal in Chas. A. Dana's hand during my absence.—J. H. W.

12.30.—McClernand sends word that Osterhaus and Carr have both advanced within four miles of Edward's, the enemy showing no cannon. They can advance no further without bringing on a general engagement.

May 16th, 12.40 P. M.—We hear from Logan on the right that the enemy is advancing on his front. Degolyer's guns open.

12.45.—Hovey's skirmishers are rapidly driving the enemy.

12.55.—The firing ceases.

1.05.—Cannon heard from Hovey's left.

1.10.—Musketry active on Hovey's front.

1.15.—Logan's artillery opens again.

1.45.—Hovey drives the enemy—musketry rattle.

2.05.—Hovey has about 150 prisoners—and four cannon.

2.30.—Logan's division hotly engaged in the woods in front of Hovey's former fighting-ground—some regiments reported short of ammunition—a brigade of Crocker's moving over the hill where Hovey began fighting—the battle hot along the whole line.

3.00.—Firing in the right-front has ceased. McPherson has about 250 prisoners—musketry is very hot on the ground in front of Hovey's first position.

3.20.—Our infantry are withdrawn from the woods and four batteries of artillery opened on them.

3.40.—Musketry-firing resumed on Hovey's old front.

3.45.—All firing ceased, except cannon at a distance to the south.

3.50.—General Logan reports that he has carried the right and has taken two batteries and a thousand prisoners.

4.30.—General Grant rides along the crest of the hill whence the troops of Hovey and Crocker have driven the enemy—the evidences of a terrific struggle are abundant. It is certain that the enemy is in full retreat—the whole height is abandoned.

4.40.—McClernand advances Osterhaus and Carr to the crest of the hill and takes up the pursuit. He has had no serious fighting. The hill and the extreme right have had all the hot work.

6.00.—Riding to the front along the Bolton and Edward's Depot Roads, found that Logan's troops had been moving around on the extreme right so as to lie across that road fronting upon the rear of the enemy. He has therefore escaped by moving toward his right upon some dark road or roads where our troops had not advanced.

9.00.—Learned that McClernand led by Stevenson of Logan's division has occupied Edward's Depot, following closely upon the retreating enemy. At the depot, the enemy fired an ammunition-train of ten or twelve cars, four of them exploded but the soldiers put out the fire and saved the rest, with a large quantity of ammunition. A woman, at whose house we stopped, reported that the Rebel wagon-train began to move to the rear at 2 P. M. The Rebels retreated in great disorder past her house, exclaiming that they had been badly whipped. It is reported that Pemberton is killed.

11 P. M.—Blair sends word that in pressing toward the Big Black he was stopped just before dark by a Rebel battery. The same happened to A. J. Smith, who is beyond him on our extreme left. Before dispositions could be made to take these batteries, it had become dark.

May 17, 7.05 A. M.—Cannonade in front.

8.30.—Arrived at the front, two miles from the bridge. Found McClernand's advance checked by infantry, posted in a strip of timber, with a battery of about three guns, one of them being a rifle and one a howitzer. Carr is on the left and Osterhaus on the right—Osterhaus disabled by a wound in the thigh. The enemy have rifle-pits behind an open field in the rear of the timber.

9.00.—The enemy giving way, his cannon rarely firing, the rifle apparently disabled.

9.40.—Enemy more active, firing rapidly from his skirmishers, behind which he has a line of rifle-pits from half a mile to a mile long. A battery of twenty-pound Parrotts is moved to the left to fire on these rifle-pits.

9.55.—The enemy begin again to fire a rifle-gun on our left; he opens a howitzer also.

10.15.—Monk, a negro, said he heard the conversation of General Green and a young lady last evening. Green said he thought the best was "to vaccinate back to the entrenchments at Vicksburg and pile the last bluejacket there." Green said he hoped the Yankees would catch General Pemberton, because he had sold the army. The loss of the Southerners had been very heavy. General Tilghman was killed and many officers with him. The people all think Pemberton has betrayed them.

10.15.—Reported that Lawler is inside the enemy's works and has taken 700 or 800 prisoners. On personal examination learn that he carried the rifle-pits in the most gallant manner; he has sixteen cannon and a thousand prisoners.

10.40.—The enemy opens a cannonade from an inner line of works, that is from the line beyond the bridge.

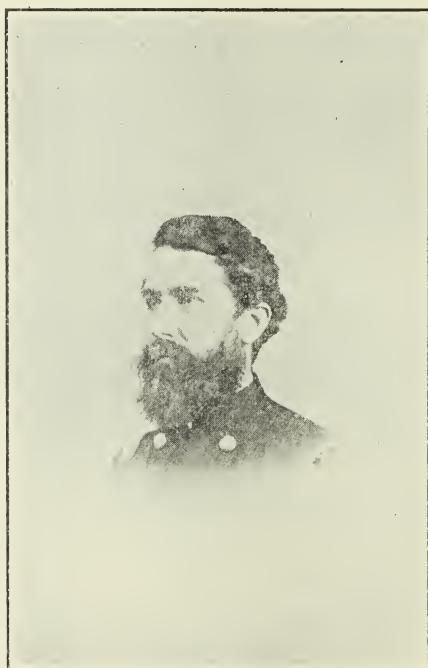
10.50.—The bridge burning.

11.00.—Lawler says he has taken a whole brigade with two colonels, one of them commanding the brigade; he has lost Colonel Kinsman, Twenty-third Iowa, killed, Colonel Merrill, Twenty-first Iowa, wounded. The number of prisoners proves to be 3000.

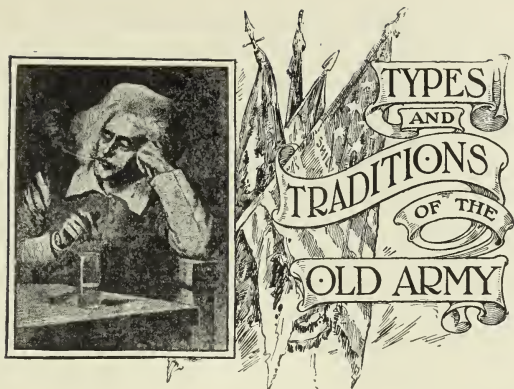
11.15.—Enemy stops firing from beyond the river.

11.20 A. M.—Gen. A. J. Smith reports that he has taken ten guns from the enemy with a great quantity of ammunition, which he has been compelled to blow up; has also burned 1000 musketry.

[TO BE CONTINUED.]



JOHN CALDWELL TIDBALL.



A DISTINGUISHED HORSE ARTILLERYMAN.

BY COLONEL JOHN H. CALEF, U. S. A.

I. HIS RECORD.



JOHN CALDWELL TIDBALL was born in Virginia, January 25, 1825, and was appointed a cadet at the United States Military Academy, from Ohio, July 1, 1844. Graduating in 1848, in the same class with Duane, Trowbridge, Williamson, John Buford and R. I. Dodge, he was assigned as a brevet second lieutenant to the Third Artillery, and on February 14, 1849, was promoted a second lieutenant in the Second Artillery. Up to the breaking out of the Civil War he was stationed at various posts, Fort Adams, R. I., Fort Moultrie and Castle Pinckney, S. C., participated in the Seminole War 1849-50, at Fort Defiance, N. M., 1853, exploring route to California 1853-54, on coast survey duty 1854-59, at the Artillery School 1859-60, and at Fort Leavenworth, Kas., 1860-61.

Promoted captain Second Artillery May 14, 1861. In April of that year the battery (A, Second Artillery) with which he was serving (Barry's) formed a part of the expedition for the relief of Fort Pickens, Fla., and was so employed till July 3, 1861, when it was returned to Washington in time to participate in the first Battle of Bull Run under its new captain, Tidball.

Soon after Captain Tidball organized his battery as a horse battery, and as such it became celebrated in the annals of the Army of the Potomac, with which it did such conspicuous service as to be prominently mentioned in official reports and to be well known throughout that army. Its fortune was generally with the advanced or rear-guards in its various campaigns, and it had the distinction of firing the opening guns in both the "Battles of Invasion," Antietam and Gettysburg.

It is not generally known that the custom of sounding "taps" over the grave at the burial of a soldier originated with Captain Tidball. On the retirement from the Peninsula in August, 1862, horse battery "A," Second Artillery, was serving with the rear-guard, and on reaching Yorktown one of the cannoneers died and was buried there. Not wishing to stir up the enemy by firing three rounds from the battery guns, as was customary, Captain Tidball substituted the sounding of "taps" (lights out), which impressive custom has since been observed at all military funerals at the conclusion of the ceremony.

After much active and intrepid service at the head of his battery, Captain Tidball was appointed colonel of the Fourth New York Heavy Artillery, and was chief of artillery of the Second Corps, Army of the Potomac, during the Wilderness Campaign, including the "Siege of Petersburg." He was made Commandant of Cadets at the United States Military Academy in July 1864, but the position not harmonizing with his temperament during active operations, he returned to the field in October, 1864, chief of artillery of the Ninth Corps, and was conspicuous in repelling the attack on Fort Steadman, March 5, 1865, and the assault from Fort Sedgwick on the rebel works April 1, 1865. It is related of him that on the former occasion, the rebel sortie on Fort Steadman, while he was looking through an embrasure to observe the effect of shots, a shell from the enemy burst in the fort and a fragment buried itself in the revetment close to his side, but "he never batted an eyelid." His intrepidity, self-possession and coolness under fire were exhibited on many fields, and he received well-earned brevets through all the grades, including that of major-general, for specific acts of gallantry. He was mustered out of the volunteer service Sept. 30, 1865, and proceeded to join his old battery at the Presidio of San Francisco, Cal.

In 1867 (May 5th) he was promoted major (by selection) and was sent to command the District of Astoria, Ore.; from there, in July, 1868, to the District of Kenai, Alaska, with headquarters at Kodiak, some 800 miles west of Sitka; then in 1870 to the District of Alaska, with headquarters at Sitka. When his regiment, the Second Artillery, was ordered East, he was sent to command the post of Raleigh, N. C., and in May, 1874, he was ordered to the Artillery School at Fort Leavenworth, as Superintendent of Artillery Instruction. From thence he was called to the personal staff of Gen. W. T. Sherman, commanding the army, making with him in 1883 an extended tour of Western posts, during which he kept the itinerary and wrote a most interesting description of the Grand Cañon of the Colorado, as well as the rest of the country visited. From the staff of the general commanding, he was ordered to the command of the Artillery School at Fort Monroe, Va., and he was on that duty when retired for age January 25, 1889. He died May 15, 1906, at Montclair, N. J., aged 81 years, and was buried at West Point, N. Y.

From close professional association with General Tidball, as a subal-

tern in his battery during the Civil War, as adjutant of the Second Artillery for eleven years and as an instructor at the Artillery School, as well as being accepted as a personal friend, I feel that I was given an exceptional opportunity of knowing him intimately, which developed an affection and regard second only to those of family ties, unchanged by time and distance, and I never failed, when it was possible in my journeyings, to make a pilgrimage to his home of retirement.

Joining his battery in December, 1862, as a second lieutenant, I was led to believe by some of my brother subalterns that our captain was very exacting, of choleric temperament and much of a martinet.

His personal appearance at the time was strikingly martial, especially when mounted. Above the average height, his dark, piercing eyes with a far-off, thoughtful expression, handsome regular features, dark-brown wavy hair, beard and mustache, and in the prime of manhood, he reminded me of a picture I once saw, of the "Knight in Search of the Holy Grail." In due time I discovered that if duty was well performed, service with him was most agreeable. Behind the austere, rather reticent and dignified exterior, there existed a love of humor and an affability that only required circumstances to develop. This was in one instance manifested by his predilection for a camp song, the heart-breaking deception of one "Joe Bowers" of Pike, as portrayed in the song of that name, and which I vainly endeavored to teach him during many Virginia marches. Some of the verses were learned and the melancholy story appreciated, but the air was beyond his musical gifts. He would at times emerge from his dignified reserve and entertain us youngsters, as we sat around the blaze of winter quarters, with interesting stories of the army "befo' de wah," including events of the Seminole War in Florida, extending as far back as his West Point days, evincing a most retentive memory of men and events. He possessed quite an artistic talent, painted in colors, and was a finished draftsman, which proved a criterion for his detail with the coast survey. A monument to his ability and untiring industry is the voluminous and exhaustive "Manual of Heavy Artillery," which was adopted as a textbook at the United States Military Academy in 1880.

In every position, *whether in peace or war, in which the vicissitudes of service placed him*, he was found equal, and in all he left his record of *efficiency*. He may well be referred to as one of the best types of the "Old Army," and one whose services, with many others, failed of proper recognition.

II. CAMPAIGNING IN FLORIDA, 1849.*

* * * * *

In 1849 I had the pleasure of "trampoodling" through the swamps between Indian River Inlet and the Kissimmee, and I will tell you how I came to be there, and for what. After the close of the Seminole War,

*Extracts from General Tidball's letters to Colonel Calef.

in 1842, all troops were withdrawn from the peninsula posts of the State, except at Fort Brook, Tampa Bay, and at Augustine, which were regarrisoned after the Mexican War. At St. Augustine was Capt. and Brevet-Col. C. F. Smith's Company "K," Second Artillery—your old battery.

A few straggling settlements had been made along the coast south of New Smyrna. One of these was at Indian River Inlet, about a hundred miles north of Fort Dallas. This *settlement* consisted of one family, that of "Major" Russell, formerly, when a young man, a midshipman in the United States Navy. Here he and his family, consisting of his wife and several children, most of whom were quite young, and two or three negro slaves lived, and with them a white man—one of those wandering-about sort of persons who are to be found in all out-of-the-way places. They had a few acres of tilled land upon which they raised a few vegetables; but their principal food supply came from the fish for which Indian River (lagoon, it really is) is celebrated. They had a few log huts and some domestic animals, fowls, etc. Another *settlement* was at Fort Dallas—their nearest neighbor.

One fine day in the month of August, 1849, a party of five or six Indian bucks made Russell a visit at his settlement at Indian River Inlet. They were probably treated hospitably and became filled up with "jig-water," the long and short of which was an altercation between the noble reds and whites, in which the white man living with Russell was killed, while Russell himself had an arm shot off. Russell and his family, including the negroes, escaped in canoes across the lagoon to the long beach leading up to Cape Canarval, distant ninety miles. This beach is but a narrow strip of sand dunes separating Indian River (lagoon) from the Atlantic. Up this long beach, destitute even of fresh water, Russell and his family trailed their way, living on crabs, fiddlers and such things as they could catch with their hands in the water. Some of the children were quite small—from three to ten years old. At Cape Canarval light-house they received assistance and means to get on to St. Augustine, where Russell had his arm amputated.

Immediately afterward a part of C. F. Smith's company was sent to the scene of hostilities under Lieut. and Brev.-Maj. R. S. Ripley, the Mexican War historian.

One of Scott's surf-boats, used for landing at Vera Cruz, Mexico, was used for transportation. By another trip the remainder of the company, under "Little Johnny" Edwards, made the voyage. They established their camp at old Fort Pierce, about four miles from Russell's ranch. Here I found them a couple of months later. I was then with Roland's Battery "M," Second Artillery. We had been stationed at Augusta Arsenal, Ga., where we were building stables preparatory to getting horses with which to remount the battery. From Augusta we went, first, to Palatka on the St. John's, where in due time we were joined by quite a number of other artillery companies from the North.

One of these was Elzey's E, from Fort Johnston, at the north of the Cape Fur.

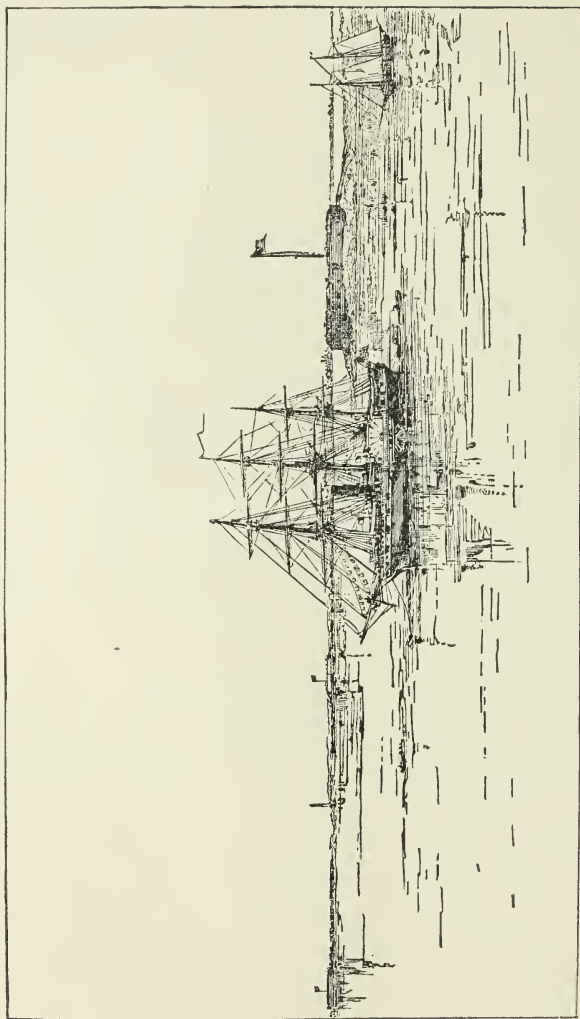
About the first of October, Roland's and Elzey's companies were embarked aboard the steamer *Nina*, and we proceeded down the coast. Arriving at Indian River Inlet Roland's company debarked and joined Ripley at Fort Pierce, while Elzey continued on to Fort Dallas for the protection of the settlement there. With Elzey were Lieutenants Carlisle, Larned (Frank L.) and Cook. I was the only lieutenant then with Roland.

By another trip of the steamer, Woodbridge's company arrived at Fort Dallas to relieve Elzey's, which was brought up to join us at Fort Pierce. With Woodbridge's were Lieutenants de Lagnel and Robertson (Old Pop Robertson). Woodbridge remained at Fort Dallas for about two years, when Dallas was abandoned (until 1855) and he came to Fort Capron, the name given to Russell's place at Indian River Inlet. Robertson was post-quartermaster during these two years at Fort Dallas, and I think this fact fully accounts for the stone houses at that place found by Hill's command when reoccupying the place in 1855. You can imagine how "Old Pop" would erect houses—castles and forts, for that matter—with the abundance of coquina rock in that neighborhood. In fact, I am almost sure he was the architect and builder of these interesting ruins, the origin of which seems to be wrapped in so much mystery. The story that they were erected by one William F. English was probably invented as a basis of a claim against the Government.

Upon a visit that Robertson made to us at Indian River, I very well remember how he boasted of the coquina houses he was building at Dallas.

From Fort Pierce (or rather from Fort Capron) we established, by the aid of the Seventh Infantry and many other companies of artillery, a chain of posts, ten miles apart, clear across the peninsula to Charlotte Harbor, connecting them by a road cut through the pine woods and corduroyed where there were swamps. For about a year Roland's battery was on this duty—and hard work it was, too. We grubbed all the pine trees out by the roots and raked the ground off into a splendid avenue, and built bridges and corduroy by the mile. Old Twiggs was our department commander, and of him, all the officers who knew him, had mortal dread. He sent word that he was coming over the road to inspect our work, and it was said he had a rooster tied to the top of his ambulance, and if at any point the road was found rough enough to make the rooster flop his wings, the officers making that part of it would catch h———and h——— meant something in those days.

Just as we got through with this work, *i. e.*, late in the fall of 1850, we were hurried off to Charleston, the South Carolina secessionists being by that time up on their hind legs in one of their periodical strikes. Major Lovel, with his company, was left at Fort Capron, where it con-



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FORT PICKENS—1861.

tinued for a year or more, when it was relieved by Woodbridge's (F) from Fort Dallas—and that is the way Dallas came to be abandoned.

About 1854 Billy Bowlegs made more disturbance, requiring many companies of artillery, and I believe some infantry, too, to be again sent to Florida. It was there (1855) that Major Hill discovered the remains of the stone buildings at Dallas that Old Pop Robertson had constructed several years before. Now my story is ended. It would have been shorter had not others attempted, doubtless through mercenary motives, to filch from Old Pop the honor of being the true mound-builder. But my story is not thoroughly rounded off without mentioning that after returning to the Florida swamps the second time (in 1854 or 1855), and having done the usual amount of wading through the swamps and constructing roads for a year or so, they received an order to proceed to New York Harbor. Greatly rejoiced at this, they hurried everything aboard a steamer preparatory to a speedy departure; but just then an evil spirit stepped in and persuaded the officers to linger ashore, during the night, to bid good-by to the unfortunates who were to be left behind. Here is where their misfortune came in: for before morning an express arrived, bringing orders countermanding their departure. Sorrowfully the companies debarked, and more sorrowful still remained another two years tramping through the swamps and fighting the mosquitoes and Indians. The moral of all this is, when you are in a bad place and receive an order to leave it, go at once; stand not on the order of going, but go and get beyond countermanding orders. If you are in a good place and do not want to leave it, then let the rule work the other way and go as slowly as possible.

III. THE RELIEF OF FORT PICKENS, 1861.*

I have many vivid recollections of Pickens, some few of which I will mention as reminders to you of the important events that took place there at the earliest period of the Rebellion. I was on the expedition which went to its relief in April, 1861—thirty-nine years ago, less about a month. A month or two before that Lieutenant Slemmer, who commanded at Barrancas, finding that the rebels were making preparations to take possession of Pickens, moved his little command of about forty men over and occupied the place, to the great disgust of the enemy, who thus saw, with disappointment, their prize slip from their hands.

This was a bold and well-executed move on the part of Slemmer; more difficult in every way than Anderson's move from Moultrie to Sumter. Slemmer had many more obstacles to contend with than had Anderson. Pickens had not been occupied since the outbreak of the Mexican War in 1845, but instead, had been made a repository for old ordnance and engineer property, all of which had become decayed from

* Extract from General Tidball's letters to Colonel Caff.

rust and age. Everything had become dilapidated; but Slemmer and his little command, day and night, blocked up most of the embrasures, and mounted as many guns as they could serve in the remainder. In addition to lack of men to do the work, he lacked even the most ordinary material to do it with. He did not even have oil or grease to put the rusted elevating screws in working order.

While he was doing this a large rebel force was collecting under Bragg on the Barrancas side, and with thousands of negroes were busy constructing batteries extending from the light-house around to the navy yard.

The expedition that I was with was for the purpose of reinforcing Slemmer, and thus preventing all possibility of Pickens falling into the hands of the enemy.

Next to Sumter, Pickens was the most important capture that the enemy could make.

Our expedition sailed from New York April 9th (I think), and reached Pickens about the 16th, touching at Tortugas on the way and at no other place. We sailed on the good steamer *Atlantic*, Gray commanding.

Col. (afterward Gen.) Harvey Brown was our commanding officer. His staff were:

Hartsuff, Adjutant-General.
Ingalls, Chief Quartermaster.
Clarke, Chief Commissary.
Sunderland, Chief Medico.
Balch, Chief Ordnance Officer.
Tower, Chief Engineer Officer.

The troops were:

1. The company of Sappers and Miners from West Point, under Lieutenant Duane, who had with him Weitzel and two or three other lieutenants.
2. Battery A, Second Artillery (you will remember this old battery), under Captain Barry, who had as his lieutenants Tidball (your humble servant), Perry and Webb. The battery was fully equipped with horses, guns, etc.
3. A company of the Third Infantry, under Captain Clitz, who had Shipley as his lieutenant.
4. Another company of the Third Infantry, under Lieutenant Hildt, who, I believe, had no lieutenant with him.
5. Battery M, Second Artillery, commanded by Hunt, who had as his lieutenants Benson (mortally wounded at Malvern), Bailey (killed at Fair Oaks) and Craig (killed at Bull Run). This battery, temporarily dismounted, was serving as infantry.

There may have been two or three other officers whom I have forgotten. But I must not forget Meigs, then Captain of Engineers, but afterward quartermaster-general. He it was who was chief organizer and manager, and perhaps originator of the whole scheme for the salvation of the most important harbor of Pensacola.

By an autograph letter from President Lincoln, he had been invested



From picture in West Point Mess.

TIDBALL'S BATTERY AT MALVERN HILL.

Presented by L. Farragut.

with paramount authority over the army and navy, the officers of which were bound to respond to any call he might make on them for assistance in carrying out the object of the expedition.

But the most remarkable thing of all was the manner in which the object and destination of the expedition was kept a mystery to the public. This was of the first necessity for its success; for had its object been known or even strongly suspected, Bragg would, with his 4000 men, have wiped out Slemmer and his little command.

The president was, of course, cognizant of it, and perhaps one or two others in Washington; but they all proved faithful in preserving the secret. The *Atlantic* was several days fitting up in New York as a transport and taking on stores, many of them of a peculiarly warlike character. This, of course, attracted much attention, and reporters swarmed around prying for threads of items which they could weave into plausible theory. But when the troops arrived wonderment went to high-water mark.

All thoughts had for many weeks been directed toward Sumter as the only place for relief. Pickens was scarcely known to the general public. Everyone jumped to the conclusion that the expedition was for the relief of Sumter, and this was all satisfactory until a full-equipped light battery came to go aboard. This was a poser: for of what use could a battery be in relieving Sumter?

All of this was, of course, known to the rebs, who were as much bewildered as our people by what was going on.

With the exception of Meigs and our commanding officer, Colonel Brown, I do not think there was another person on board of the *Atlantic* who knew our destination until after we left Tortugas and headed for Pensacola. Then as there was no longer danger of the secret getting to the rebels before we could arrive at Pickens, we were informed of our destination, and great was the astonishment of many of us, for we still could not see of what use a light battery would be on Santa Rosa Island. I have always believed that the sending of the battery was to hoodwink, in some way, the enemy and draw his attention away from both Pickens and Sumter, for another expedition, principally naval, was at the same time fitting out for the relief of Sumter. This, although it turned out to be a fiasco, was of considerable advantage in drawing away the attention of the enemy from us.

But the appearance of the Sumter expedition off Charleston precipitated the attack on Sumter, and thus opened the war in reality.

We were on our way to Pickens when this event took place, and the first we knew of it was through a newspaper sent across to us in a toy sailboat from the rebel camp at Barrancas.

The running of our steamer was so arranged as to bring us to Pickens during the night, and before the rebs were fully awake next morning all of our command, except the light battery, was in the fort. Thus was Old Bragg outwitted. He had demanded the surrender of

Pickens when it was occupied by only about forty men; now it was reinforced and too strong for assault. His chagrin was heightened by the fact that he had arranged to assault Slemmer on the night succeeding our arrival. But now it was too late and Bragg was mad.

The *Atlantic* anchored about two miles above the fort, on the outside beach, and about three-fourths of a mile from shore, and where our landing operations were screened from observation of the enemy by the ridges of sand-dunes. Our battery horses were lowered to the water by slinging; when being freed from the ship's tackle they swam ashore, being towed by a boat, a short distance, to give them a start toward shore.

Within two or three days the *Baltic* arrived, bringing several companies, chiefly foot batteries, and about the same time several men-of-war arrived, soon to be followed by vessels bringing all kinds of supplies, chiefly ordnance, engineering and subsistence.

The opposite side of the harbor being so strongly armed our vessels made no attempt to go inside, thus rendering it necessary to land everything by small boats. The navy was very generous in giving us assistance in this work. But the most difficult of all was to get the stores and things from the beach up to the fort, a distance of only two or three hundred yards, but made most difficult by deep and often very hot sand, through which everything had to be carried by hand. There was no lumber with which to make a plank road. Carrying shot, shell and other inconvenient packages through this deep sand was a fearful job, occupying many days and nights.

There were no mules and carts with which to relieve the men. Slemmer had managed to get over in his little scow one old mule and a cart, but one day the mule deliberately waded into the bay and then swam across to Barrancas to join the rebels. Leander, it is written, swam the Hellespont to enjoy the passionate embraces of Hero; but what this old mule expected to enjoy with the rebels God only knows.

While this toting was going on outside of the fort, lively work was progressing inside, cleaning out old rubbish, mounting guns, constructing and filling magazines, building traverses and splinter proofs, etc. The entire defensive system of the place had to be turned round, for the fort had been constructed to meet an enemy coming from the seaward direction, while now he threatened us from the opposite side, the side upon which the magazines had been located. To protect these large hills of sand were thrown up outside of the walls of the fort facing Barrancas. Everything had to be done on the jump, for we did not know at what moment Bragg might open on us. He had lost one chance by delay, and we thought it probable that he might endeavor to retrieve his loss by taking us while yet entirely unprepared to resist a bombardment.

Every morning the garrison, officers and all, turned out at three o'clock for work.

Barry somehow had the *morale* over old Harvey Brown, and would not allow his horses or carriages to be utilized, except to a very limited extent, for transportation purposes. How he had acquired this *morale* I do not know, for old Harvey was a most energetic old fellow himself and generally carried his point. Nor would Barry allow his lieutenants to be put on the rosters with other lieutenants for fatigue duty, superintending working parties, etc. Becoming wearied of remaining idle while all others were at work, I got authority to construct, on my own hook, a battery for four 10-inch mortars on the inner beach, about half a mile above the fort and directly opposite the "navy yard battery" of the rebels, distant about 1200 yards. Here was a steep sand ridge easy to cut down and form into a battery. By hook or by crook I got a few men to assist me in the work, and in a little while had my mortars in position, after which I extended the battery to receive three or four old-fashioned seacoast howitzers, and a rifle converted by some odd process for some other kind of a gun. I was my own engineer, superintendent and head workman. At first this battery went by my name, but as Lincoln had now risen to be a bigger man than I was, his name was given to it, an act of obsequiousness that I did not like one bit. It was a severe blow to my *amour propre*, leaving in my cranium a hollow where before had existed a kopje of self-esteem.

Soon after I had completed my battery. *i. e.*, about the last of May, there sprang up one clear, starlight night a heavy wind; in fact, a sort of dry blizzard, which broke the floating dry-dock from her moorings at navy yard (at least, old Bragg claimed it was by accident that she got loose), and sent her drifting over to our side, heading directly for my battery. The garrison was aroused instantly, and every man rushed to his post, uncertain as to what deviltry the rebels might be up to. The gloom of the night magnified her size until she appeared, as I heard a soldier express it, like Castle Williams floating off from Governor's Island. When we came to understand that it was only the dry-dock, we thought Bragg might be attempting a Trojan horse game on us, and that the thing contained armed men with cannon mounted, and all that sort of thing to take us by treachery. But long before reaching our shore the monster grounded, revealing to us, when daylight came, nothing but an empty structure of wood, harmless as an old cracker-box stranded on the beach.

Old Harvey was very much excited over this event, construing it into an overt act of war upon the part of Bragg, to whom he sent a curt note demanding the wherefore of such conduct. This was just to Bragg's taste, for he, too, was pungent in controversy, and ridiculed old Harvey for having been frightened at such a trifle. So they had it hot and heavy. But while the controversy was still going on another incident occurred, which shunted off old Harvey's anger to matters nearer home.

It was customary for the officers of the guard, taking turns, to

patrol the water-front of our position at night, *i. e.*, the beach facing Barrancas, using for this purpose a boat and crew furnished by one of our war vessels. On the occasion referred to Lieutenant S., of the Fourth Artillery, was senior officer of the guard. He was visited by Lieutenant L., who accompanied him on one of his rounds. While passing near the stranded dock they agreed to go aboard of it. Soon after leaving the dock the latter burst into flames. An alarm was given at the fort and a crew was sent to extinguish the fire, which was readily accomplished, the flames not having made much headway.

The K. O. was very angry over this affair, and when he got angry he was angry all over. He was angry because he feared Bragg might open his batteries while we were yet far from being ready to resist. He traced the matter back to L. and S., whom he brought to trial before a court-martial.

An officer who acted as counsel for them interviewed the sailors who had been the crew of the boat on the night in question, to find out what would be the character of their testimony. "O, yes," they said, "we know all about it, but the officers, meaning L. and S., were drunk, and did not know what they were doing." Sailor-like, they thought to be drunk was excuse for anything, and were much grieved and astonished when informed that in the army such a charge would be considered an aggravation of the offense. When they got this view of the matter through their heads they suddenly discovered that they knew nothing whatever of the case, further than they had been of the crew that had rowed the boat to the dock, and that two persons, whether officers or not they could not say, had clambered up out of their sight on to the dock. So the two culprits were acquitted, greatly to the chagrin of our energetic K. O.

When the weather became hot and the flies bad, Barry was permitted to encamp his battery among the pine trees, near the beach, about a mile from the fort. Here we established a fine camp, fanned by the gentle breezes of the gulf. Clitz and Hildt were with us with their two companies of infantry; nice jolly fellows they were. Our camp became a sort of sunning place for the less fortunate cooped up in the stifling air of the crowded fort. They made us frequent visits.

Navy officers, too, frequently visited us, bringing their bands to charm us with sweet music, no less charming than their own good songs and stories. I think Dewey was there and had a most thrilly song, something about an old woman and an old cat that sat close by her at the fire. But some of the songs were equal in pathos or bathos to "Joe Bowers" of old.

Notwithstanding our pleasant camp and agreeable company, we were pining to get away, longing to be of the army then forming under McDowell, to crash unto the Rebellion in less time than three shakes of a sheep's tail.

Toward the latter part of June, Billy Wilson arrived with his

famous zouaves, the Ninth New York, I think. Billy was a famous character himself, a Tammany heeler from the slums of New York, and his entire regiment was composed of material of the same character. Billy had been sent there to take the place of those of us wanted elsewhere. His regiment had been selected especially for its noted worthless character, and sent to Santa Rosa as a place where it could do the least harm, for no good could possibly come out of such a Nazareth. This was a bitter pill for old Harvey to swallow, and loudly did he kick and squirm against it.

Billy was to occupy our camp, but until we could get off, bivouacked his regiment close by, where we had the full benefit of his charming society. It was this camp that the rebels surprised and destroyed, chasing Billy and his gang into the fort, and it was in going to their assistance that old V. was captured and taken into durance vile by the rebs.

We had a hard time re-embarking our battery, especially the horses, that had to be carried out to the vessel in a small scow, a few at a time, and hoisted up over the ship's sides. Some of the time the water was inconveniently rough. Finally, on the sixth of July we got off, and reached Washington in time to catch up with McDowell, who had already started for the plains of Manassas, but got no further than Bull Run.

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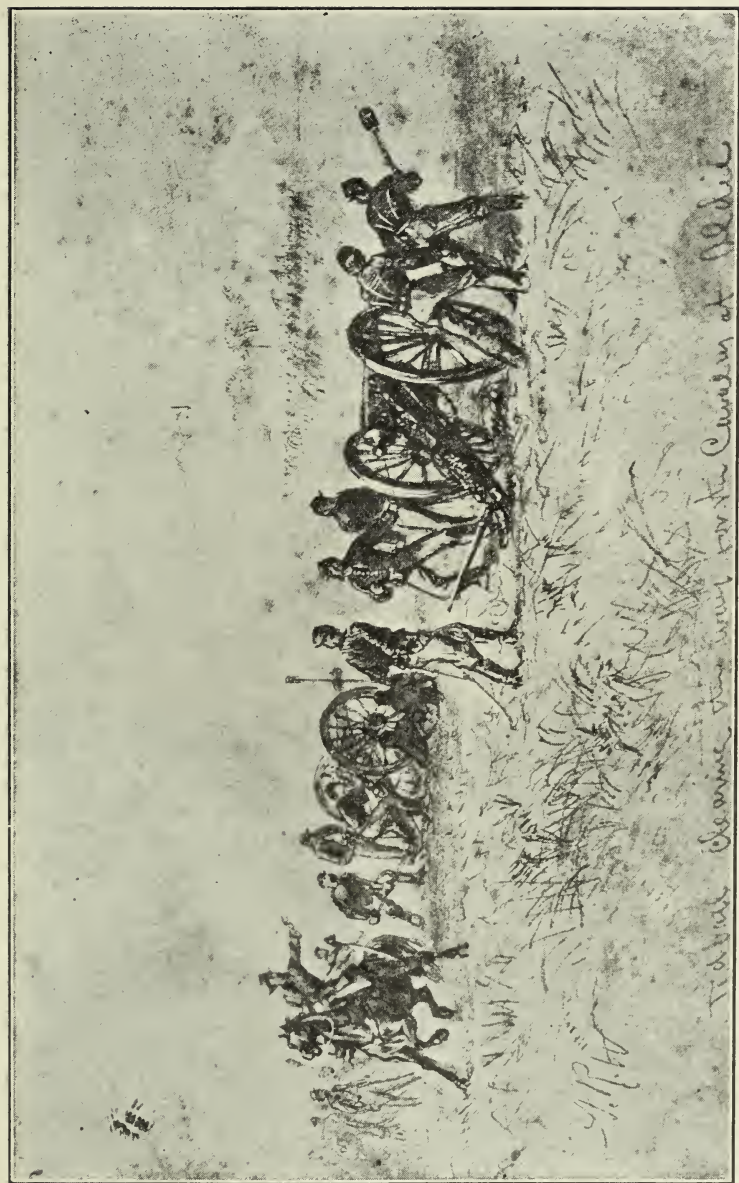
IV. A POSTSCRIPT BY GEN. J. P. FARLEY, U. S. A.

In a letter received from my old battery commander, Tidball, under date of November, 1896, he says: "It does me good to hear from my boys of the war days. Audenried has gone, Joe Ramsey has gone, Clark has gone and — went to the Devil, and I guess is with him still!

* * * * *

I recall the day when, fresh from the Military Academy, to the great amusement of my captain, I inquired, in submitting a requisition for battery stores: "What is a 'side of leather,' captain?" "Haven't they taught you that at West Point?" he replied. "Well, I always thought so, too much theory, too little practice." This cannot be said of the course at the present day. On another occasion, I asked him how to provide against losing my guns, then out on picket line with a section of the battery, flanks and rear exposed and with no infantry support (this was immediately after the first Bull Run disaster). He replied:

"Do not lose your guns. Keep prolongs fixed, and be prepared to retreat at once if an attack is made. Move by piece down the road and at the gallop. Halt your pieces at intervals and fire; pass pieces alternately; I will hear your guns and come to your aid; but make no stand." "The infantry supports will desert you and you will certainly lose your guns if you don't follow my advice." A trying duty indeed, out at the extreme front (artillery on picket duty), with instructions to keep in constant readiness for flight on the first appearance of the enemy.



From painting by Wand in Fort Monroe Club.

TIDDBALL'S BATTERY AT ALDIE.

Courtesy of General Farley.

The night of the very day these instructions had been given the sergeant of the section reported that there was a suspicion of the enemy's cavalry in the road in the immediate front. The guns were, of course, always in readiness and loaded with canister, but the cannoneers were forced that night to stand to their guns awaiting an attack for several hours.

The section at this time was enveloped in a heavy mist, the night being dark as pitch. Everything was held in readiness for flight, in accordance with instructions, but no attack was made. The conditions were far worse than if it had been; since in that case there would have been something diverting—a "flying artillery" trip and a running fight.

It was perfectly clear to all, after the Bull Run disaster, that the light batteries were not suitable for outpost duty. The several sections of the batteries (two guns and caissons each) were placed at the front on the picket line, where they actually constituted an objective for the enemy; inviting attack which, except for the guns, would not have been made. No protection on the flanks of these advanced positions could be afforded, and the enemy in small force could readily have broken through our thin line, struck in by the rear and flank, and probably have captured the guns.

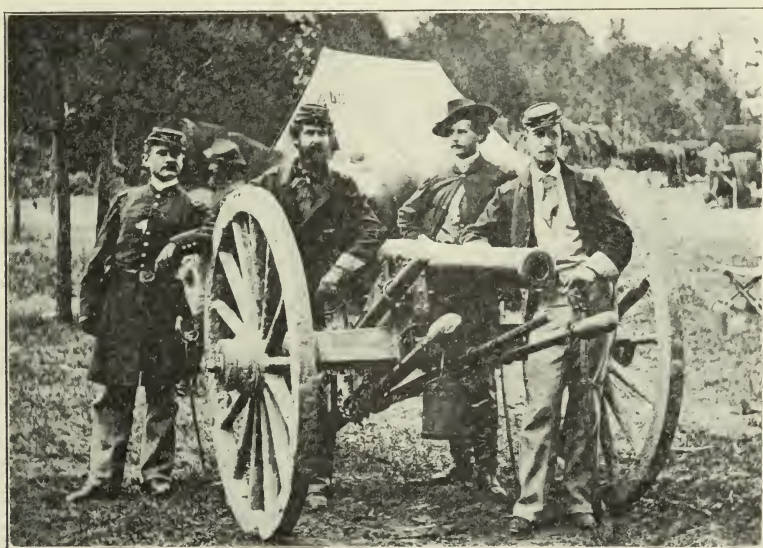
This condition was understood by the general commanding, but there were other things to be considered. Most of the remaining regiments of three months' men were far from reliable and needed a moral support, to be secured only by association with regular troops. With the exception of about 200 men of the Third United States Infantry, there were none of the Regular Army at the time available for service with the Army of the Potomac, except those with the light batteries. Hence it was that instead of infantry being the support for artillery, artillery was made, in fact, to serve as a support for the infantry, a paradox indeed; and had we been in the presence of an enterprising adversary, warfare conducted on these lines would have been of short duration.

In order to keep the infantry at the front, it was necessary to make them feel that there was a reason for their being there, and the reason held out to them was the necessity for their remaining as supports to the batteries.

Toward the fall of the year the battery was withdrawn from the right bank of the Potomac and placed in the artillery reserve in the city of Washington, east of the Capitol.

There was one feature in the case of our defeat at Bull Run which may be of interest to those not familiar with the true condition of affairs on that battle-field, and which occurred during the retreat of our army from Bull Run to Centreville. The West Point Battery, Griffin commanding, and Battery "I" of the First Artillery, Ricketts commanding, suffered, in this action, a very heavy loss both in men and horses—the guns of both batteries falling into the hands of the enemy. This was chiefly due to the fact that Griffin was not allowed to open fire upon a

Confederate regiment, as he desired, because he was advised that this was a Union regiment and one of his battery supports, and here was the turning point in the contest. But it is not to this that we now make special reference. The right wing of our army in the advance made a détour on a U-shaped line some ten miles or more in extent, while the distance from the start to the finish across the arms of the U was not more than half a mile. The men who had followed on the arms of the U in this advance did not, in fact could not, appreciate the real conditions of their march, and very naturally, when on the retreat, followed the road or roads by which they had advanced. So blocked were these roads by men and material that the enemy's cavalry could not penetrate the mass, but nevertheless greatly harassed the rear-guard, a plucky little battalion of some hundred regular infantry. After our troops had traveled a distance of some ten miles in retreat, the field batteries of the Confederate Army and their "Black Horse Cavalry" fell upon our flanks, and this, indeed, without having to make any advance whatever. The impression, nevertheless, created upon the minds of those in flight was, that they had been followed for ten miles or more; that the rear of the column was probably annihilated, and that the cavalry had cut its way through and was closing upon the center and even the head of the column. Such impression was, as all must agree, well calculated to throw even the very best troops into a panic. This attack of the Black Horse Cavalry was effected by simply fording Bull Run stream, or crossing, one by one, of the several bridges. The appearance of cavalry, under the circumstances, filled our troops with dismay.



ON THE CHICKAHOMINY IN 1862.
Lieut. Clarke, Capt. Tidball, Lieuts. Dennison and Pennington.



FIGHTING GUNS LANDWARDS.

BY MAJOR C. R. BUCKLE, D.S.O., R.G.A.

(*The Journal of the Royal Artillery.*)

IN an interesting article on "Our Siege Artillery" in the February number of *The Journal*, Colonel Simpson urges the importance of training at least twenty-five Coast Defense Companies R.G.A. in siege train work with a view to manning the 148 pieces which we shall require if we ever attack a modern fortress.

There are, I venture to suggest, additional reasons why we should give the whole of our garrison-artillery such a training as will fit them to fight "landwards" as well as "seawards."

It is one of the latest theories on the defense and attack of harbors that the hostile ships will not waste their limited supply of ammunition in attempting to silence the guns of a fortress, but, if they attack at all, will concentrate their fire on war-ships in the harbor, the docks and important workshops.

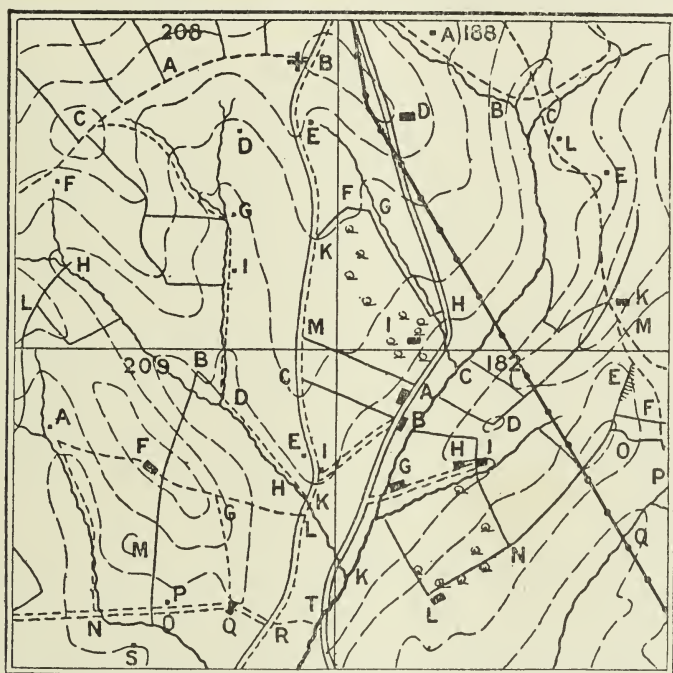
The attacks on Port Arthur support this theory. On one occasion only, viz., the 9th February, 1904, did the Japanese risk their war-ships within effective range of the guns of the fortress, and on that occasion they did not come nearer than 10,000 yards. This applies in a special degree to the British nation. So long as our navy is more powerful than that of any combination which is likely to be formed against us, it is improbable that an attack will be made from the sea on our coast fortresses *provided that they are defended by an adequate armament fully manned by a thoroughly efficient personnel.*

But every fortress has its land front. Just as our all powerful fleet makes a serious attack from the sea improbable, so our comparatively small army makes an attack from the land the more likely, especially in the case of our fortresses abroad. Instead of sending our gunners to sea and handing over our coast defenses to the navy as advocated by a certain school of thought, our endeavor should be to turn the attention of our coast defense troops to the land side of their fortress.

The siege of Port Arthur was no exception to the rule that a well-defended fortress only falls to a combined attack from land and sea. In the event of a war in which the garrison-artillery can take part, for every round we fire *seawards* we shall probably fire fifty *landwards*.

In our next war we may have to fall back on coast defense artillery units to provide the personnel for heavy batteries in addition to the present authorized establishment, and for heavy guns on the lines of communication as was found to be necessary in South Africa.

That the guns of the movable armament will as a rule be engaged landwards goes without saying, but the probability, or one might say possibility, of guns of the fixed armament of a fortress being also as a rule engaged *landwards* does not appear hitherto in my opinion to have received sufficient practical attention. Units of the garrison-artillery allotted to the fixed armament have become so accustomed to fight their



(See page 130.)

guns by means of instruments the accuracy of which depends upon their height above the sea level, that they may lose sight of the fact that guns may be fought by any means other than by position finder, depression range finder or automatic sights. Every modern gun of the fixed armament has practically an all-round arc of fire, therefore it is possible for every modern gun (unless the emplacement be on the side of a steep hill) to bring fire to bear on a target anywhere within range of the gun (provided that the target is not protected by a covering mass the slope of which is steeper than the angle of descent of the projectile). With possibly a few exceptions, every gun in a fortress (light Q.F. guns of the anti-torpedo boat defenses excepted) can be used over the land front.

I should like to see discussion on the best method of organizing our existing defenses, and training our men for fighting *landwards*; for without organization and training, we are as powerless to deal with a concealed battery on the land front as we were powerless eighteen years ago to deal with a ship steaming ten knots.

When we begin to consider the subject we find that the system of fighting guns *landwards* is very much the same for all pieces, whether they be heavy or medium guns of the fixed armament, or heavy or light guns or howitzers of the movable armament. The system is in most of its details somewhat different to that to which our coast defense units are at present trained. When firing *landwards* we notice:

(a) The artillery commander, in order to concentrate the fire of his batteries on a concealed target, cannot make use of the Square System quite in the same manner as when firing seawards. An amplification of the Square System is necessary.

(b) Ranging for the length of fuse is one of the most important details.

(c) Fire will as a rule be against concealed targets, therefore, clinometer elevation will be necessary. Laying for direction must be by aiming point, aiming posts or training arc. Our layers must, therefore, be trained accordingly, and be accustomed to lay on natural objects which are not as clearly defined as the bow water line.

(d) Searching and sweeping fire may have to be employed.

(e) Ranging will have to be carried out over undulating country which is a very different thing to ranging seawards.

We will now consider what arrangements we can make to train our Coast Defence Artillery in the above duties, if possible without incurring any additional expense to the public.

(a) It would at first sight appear somewhat difficult to give sufficient information to the Battery Commander to enable him to bring fire to bear on a concealed target the position of which can be pointed out to him on a map but which is not visible from any observing point in communication with the battery. But here the artillery of a fortress has an advantage over the artillery of the field-army; for the former is able in time of peace to prepare maps of the country over which the fighting will be done in such a manner as will give them the information they require.

One method of making such a map is as follows: Take a map (three inches to one mile is a convenient scale) embracing all the country within range of the guns of the fortress, *i. e.*, about 14,000 yards for the heavy guns of the fixed armament. Divide this map into squares of 1000 yards side. Number the squares in any convenient manner, the right-hand vertical column might run from one to twenty, the next column twenty to forty and so on. Make a careful reconnaissance of the ground, square by square, and mark on the map the position of every point which battery four guns on track 189 G. 189 H. When selecting your points might be the junctions of roads or streams, buildings, peculiar well-defined trees, conspicuous rocks or patches of ground, angles made by fences or sides of a wood, bridges, gates, etc., and to each of these points assign a letter. The position of the target will be described with reference to these points. A fighting order might be worded thus, "engage battery 4 guns on track 189 G. 189 H." When selecting your points remember the uses to which they are to be put, *viz.*, as points which can be identified, either from some observing station in communication with the guns of the defense (such observing station may be on the top of a hill or in a balloon), or by scouts sent out at night. Particular attention

should be given to ground which is hidden from the gun positions. Points which will be suitable as ranging points should be carefully noted.

A schedule of these points should be made giving:

- (1) Such a description of each as will assist in its identification.
- (2) The range and training to the point from the battery for which the map is constructed.
- (3) Information as to whether the point is visible from the battery.
- (4) The observation stations from which the point can be seen.

In the example below four squares are shown, viz.: Nos. 188, 189, 208, 209. The schedule is that for the points in square No. 188.

Square.	Point.	Description of Point.	From Z battery.		Visible from observing station.	
			Range Yards.	Training Degrees.	Z.	Y.
188	A.	2 stones marking source of stream N.E. of track.	7300	32	Yes	No
	B.	Track from cross roads at 187 D. crosses stream.				
		4 tracks meet 40 yards east of this point.....	7050	31½	No	No
	C.	Track crosses stream.....	7020	31	No	No
	D.	White house 30 yards east of road, there is a white walled enclosure at north end and square of cultivated land on east side. Very clearly defined. <i>Good ranging point.</i>	7100	33	Yes	Yes
	E.	Rough rocky patch east of track.....	6820	29½	Yes	No
	F.	Angle in fence N. corner of SAMUELS FARM enclosure. This enclosure is fenced.....				
	G.	N.E. corner of SAMUELS FARM enclosure, south of this point, stream and fence run side by side.....	6800	34½	Yes	Yes.
	H.	E. corner of SAMUELS FARM enclosure.....	6750	34	Yes	Yes.
	I.	SAMUELS FARM white building surrounded by trees.....	6530	33½	Yes	Yes
	K.	Ruins of barn on a ridge east of track. A fence with cultivated land on each side runs along ridge West of K to 189 D. and thence into the valley at 189 I.....	6400	34	Yes	Yes
	L.	Rocky spot on track; ground drops suddenly from S. to N.....	6500	29½	Yes	Yes
	M.	Junction of tracks, <i>good ranging point.</i>	6950	31	Yes	Yes
			6350	29½	Yes	Yes

Every artillery officer in the fortress should, with the aid of this map of the schedule of points, make a careful study of the ground so that he can readily recognize every point from his battery or from the observing station from which it can be seen: a casual ride over the country is not sufficient, two or three hours must be devoted to each square; the probable positions for the enemy's artillery must be carefully noted, the features best suited as ranging points when firing on guns in concealed positions selected, and the difficulties which are likely to occur when ranging on these points thoroughly grasped. The coast defense artilleryman, when he has to engage the enemy in the vicinity of his own fortress, should be so well acquainted with the ground that he knows every hollow and false ridge which may hide the burst of his shell; in fact, he should be in the position of an officer who, before carrying out peace practice, has ridden down the range and studied the exact position of the targets and ground in their vicinity.

A map prepared as described above has the following advantages:

(1) It provides the artillery commander with an accurate and simple means of indicating the objective to his batteries. The message "engage four gun battery on track 189 G. 189 H." will be easily understood.

(2) The approximate range can be measured off the map.

(3) When engaging a concealed target which is visible from an

observing station, the approximate range and bearing can be obtained from the map.

(4) It is possible to engage a concealed target which has been located by scouts but which cannot be seen from any observing station. The best method of doing this appears to be to range on the nearest visible point to the target, and to ascertain from the map the difference between the distance to the ranging point and to the target. The necessary correction for line can also be obtained from the map. This method also will probably be the best to adopt when a balloon or kite is the only possible means of observing the fire.

(b) RANGING. The method of ranging without a range finder using sights or clinometer can be taught with one-inch aiming rifles fired at a stationary or drifting target. Every battery commander should also be exercised in ranging for length of use with a gun of small caliber, that which fires the cheapest shrapnel shell being selected.

(c) Layers should be exercised in laying on natural objects on the land front with open sights, telescopic sights and clinometer.

(d) The method of "searching and sweeping" should be practiced and the batteries should also be exercised in "distribution of fire."

(c) At the majority of our fortresses it is impossible to obtain a suitable land range on which to train officers in the observation of fire over undulating country. The elementary principles of ranging can be taught when firing seawards or over a flat range such as Lydd; but thorough instruction in the observation of fire can only be taught on ground such as that over which horse, field and heavy batteries carry out their practice. Officers of coast-defense units should periodically attend the practice of horse, field, or heavy batteries, or should be put through an "observation of fire" course at one of the practice camps. A portion of the annual training grant could be usefully expended on such instruction. Garrison artillery officers from stations abroad, where no suitable land ranges exist, should be encouraged to attend these practice camps. Their traveling expenses from their residence at home to the practice camp might well be charged against the training grant of the command to which they belong.

In conclusion, I would urge the necessity for officers of all arms of a coast defense fortress making themselves thoroughly acquainted from a military point of view with the country in the vicinity of their station. A move in the right direction has been made by the institution of staff rides in the neighborhood of some fortresses, but much more can be done.

All war games should be played on the map of the country adjoining each particular fortress. The majority of the winter exercises should be based on the attack and defense of the fortress. By this means we not only make the war games and winter schemes more interesting, but we encourage officers to study tactically the ground over which they may possibly have to fight. Our endeavor should be to so train our minds that we always regard the country which we are looking at as a future battle-field; so that, in all our recreation, whether it be hunting, shooting, riding, cycling, or walking, we are making ourselves better soldiers not only physically, but also mentally.

THE USE OF THE HORSE-SOLDIER IN THE TWENTIETH CENTURY.*

BY CAPTAIN C. W. BATTINE, LATE FIFTEENTH HUSSARS.

THE doctrine which I venture to put forward this afternoon for your consideration, and on which I challenge discussion, goes a step farther. It is that Napoleon's dictum still holds good, in spite of mechanical inventions and modern treatise on tactics, *i. e.*, that cavalry should intervene before, during and after the decisive collision; cavalry on the battle-field should deliver the knock-down blow whenever it gets the opportunity, and that opportunity will most certainly occur, if the commanders are watchful. Without its co-operation, the maneuvers are impossible which bring about battle under favorable conditions, and, in its absence, there can be no destructive pursuit to reap the fruits of victory. Before the battle the long columns of troops, such as are necessarily employed in the huge armies of to-day, are very easily held up; their communications are easily interrupted; all sorts of annoyances and delays are easily inflicted by the side which can maneuver round them with a superior force of cavalry. * * *

During the nineteenth century, with the general decadence of military science, cavalry suffered, and it was not until the American Civil War of 1861 that there was any revival of the use of cavalry. But the marvelous resistance put up by the Confederate States against the great resources of the North, with their brave armies and persistent policy—for persistent policy counts for a great deal in war—was largely attributable to the assistance rendered by Stuart, a young man of twenty-seven years of age, at the head originally of but 6000 horsemen, raised hastily on the plantations of the South. It was not until the superiority in mounted force had undoubtedly passed to the North that the Southern armies were cut off, beaten and forced to surrender.

Continuing the same line of argument, I would direct attention to the Battle of Gettysburg, which I have called "The Crisis of the Confederacy." There the Southern States failed to win a victory, upon which their existence depended, because their cavalry, under Stuart, was raiding in the rear of the Federal Army, cutting communications, instead of combining on the battle-field for a decisive blow against the Federal field-forces.

There are other points which give a great advantage to the swift-moving force of cavalry. The difficulty of withdrawing troops that are once engaged, the very intensity of fire and the extensions that are inevitable, make it most difficult to collect your men when once you have launched them in the line of battle. Practically, cavalry is the only arm that can open a fight and can get out of it without suffering heavy loss. The same applies in a less degree to artillery, but only because artillery fights at a great range. The uncertainty which prevails as to what is going on gives a great opportunity for bluff, and bluff is a very formidable weapon of the cavalry arm. You cannot tell exactly what forces you are being attacked with. As the bullets come on you, you cannot tell whether they are coming from infantry or cavalry, and the tendency, if you are attacked from an unexpected quarter, even in

*Extracts from paper read before the Royal United Service Institution.

the bravest men, is to picture the worst. Consequently, a surprise attack, with all the bluff of the cavalry arm, has an enormous advantage which it never had before. In old days it had to come up so close that the surprise was very soon seen through, and the attacking force was discounted and accurately gauged.

* * * * *

I think in this country there is some confusion of mind as to what really separates cavalry from infantry. We hear a lot of talk about mounted infantry, but I do not think anybody could really tell you what was the difference between a mounted infantry corps and a cavalry corps. Is it the possession of a rifle—because all cavalry now is armed with a rifle—or it is the possession of a steel weapon that makes the difference? But, then, all infantry is armed with a steel weapon. I submit that the real difference between cavalry and infantry is the possession of a horse. The characteristics which infantry possess, and which give them their advantage over cavalry, are that they can entrench and cling to the ground. They gradually pervade the zone of combat by their superior numbers, by their superior volume of fire, by their greater defensive powers, and they can stay better. Now, the characteristics of cavalry, on the contrary, are that they can get there first; they can snatch ground which is extremely valuable, and they can surprise. They can constantly open a fight and withdraw from it; they can choose and range their point of attack; they can bring up their men fresher and with more ammunition, even if in smaller numbers. Consequently, their power at the beginning of a fight for a short time is greater than the power of infantry; whereas, the power of infantry is eventually bound to be greater than the power of cavalry, if the fight is spun out. A very noticeable characteristic of the fighting in Manchuria, and to a less extent in South Africa, was that it was almost impossible to shoot the enemy out of a position in which he really meant to stay; he eventually had to be charged; and the Japanese plan was generally to charge at night. They kept a heavy fire up during all the hours of daylight, and when night closed in, when the wretched defenders thought they had earned a few hours' rest, all of a sudden they heard the war-whoop of the Japanese infantry, probably of the fresh reserves coming up from behind, and they would rush in and clear the place. If it had to be retaken, it had to be recaptured in the same way. No one disputes that cavalry has a far more formidable shock than infantry, and that, if positions have to be taken by shock, cavalry can deliver that shock with greater power than infantry, always provided that the shock is speedily followed up by troops capable of defending it with fire-power. But that shock must be delivered across ground over which a horse can gallop; that is the cardinal necessity for cavalry action. No one who has studied battle-fields, and the country where war is likely to be waged, doubts that there will be much fighting on ground over which a horse can gallop. * * * I believe that the shock-tactics of cavalry are as much susceptible of improvement as the fire-tactics of infantry. It is all very well to say that these attacks are difficult to deliver. So is everything in modern war. With the improvement in machinery, and what is, perhaps, more important, the improvement in men, everything has become more difficult, and if you are going to achieve anything in war you must do it better, a great deal better, than it used to be done.

There is a great deal of discussion to-day as to whether cavalry can be trained to do its work equally well on horse and foot—whether it can perform the double role of fighting on foot and on horseback. I know that many continental authorities, whose opinion is of great value,

hold that the two or three years in which they have their men is insufficient to train them for the double role. If you had seen the recruits coming into the barrack yards as often as I have in France and Germany, you would readily understand their point of view. The marvel is that they can make cavalry soldiers of them at all. But our men, with their long, clean limbs, their innate love of riding, and the longer time that they have for the purpose of learning to ride, should not be daunted by the necessity of learning rather more than their continental rivals; in fact, the whole position redounds extremely to our advantage. There is no doubt whatever, from the histories which are extant, that Marlborough's cavalry fought both on foot and horse, and the musket in those days was a complicated piece of machinery, indeed, compared with the rifle with which we are armed; so that if they could do it, we can. I think it will be generally conceded that surprise is the real weapon of the cavalry arm, and that a skilful use of that weapon will, in the future, give even greater results than it has in the past. * * *

I would like to draw your attention, for a moment, to the different forces of cavalry which are maintained by the greater nations, in rivalry, for the possession of what has come to be called power. Taking the power which, next to us, is probably the greatest, the United States, their permanent force of trained cavalry is very small; but there are, as the Civil War proved, a very large number of men who are skilful riders and skilful revolver shots; and it would take only a very few weeks for the United States to put into the field 100,000 cavalry as good as the world has ever seen. Their Military University, West Point, brings up a school of cavalry officers that would supply the higher commands, and a few weeks, or, at any rate, a few months' practice, would develop a school of young leaders who would give excellent results. I think the United States, in three months, would be able to put a force of cavalry in the field such as we should find it very difficult to beat. Taking the continental powers, the Russians have a very large force of cavalry permanently employed, but this force is pinned to their western frontier, and the detachments which were drawn from it for the war in Manchuria did not give a very good account of themselves, but there were special reasons to account for that. It is probable that a power which fought Russia in Poland would have to fight against a very powerful force of cavalry indeed. The Germans maintain a force of about 50,000 cavalry, organized in brigades, which could very soon be greatly expanded; in fact, the organization is complete in the German War Office, though it is not published, for forming them into divisions. These would form a force of about ten cavalry divisions, and they would be mobilized and on the move within forty-eight, and, perhaps, twenty-four hours, of the declaration of war. The French have a somewhat smaller force, but it is, perhaps, more highly organized even than the German, for it is organized in divisions in time of peace. The Austrians have also a very powerful force of cavalry. All the nations I have mentioned have a highly organized system of horse supply. They leave nothing to chance in their horse supply. They know that if there was a bitter war, in which their national existence were involved, the horse supply would be a matter of vital importance, and they have not neglected it. America, Russia, Germany, Austria and France have all great reserves of horses, and have a very complete machinery, in time of peace, for collecting those horses in time of war. It may be a surprise to many to hear that the power which possesses, in peace, the most efficient cavalry forces is Great Britain. In the Regular British Army we have a force of ninety squadrons of regular cavalry—some 10,000 horsemen, of whom

the rank and file are undoubtedly superior, and very far superior, to any other cavalry in the world. In addition to that, we have a force of 20,000 Indian cavalry—I am not taking low numbers; I am not taking estimates, but I am taking the number of men who I know can be horsed and sent into the field. These regiments of Indian cavalry are, according to good judges who have led them, little, if at all, inferior to European cavalry. Of course, they vary; some regiments are better than others, but, taking the mass, I think they are extremely good. Next we have a great number of Colonials, who have been accustomed to ride all their lives, who ride as easily without a saddle as with it, who can use firearms, and to whom it would be no trouble at all to learn to use the lance. I dare say there would be no difficulty in raising 10,000 such men throughout the Colonies, and although they have no particular discipline, except those men who served in the recent Boer War, still, in three months, they would be as formidable soldiers as the Americans.

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DISCUSSION.

Col. G. H. Elliot (late Third Bengal Cavalry): It is the co-operation of the three arms in war that achieves victory—the attempt to separate units of war in war can only end in disaster, sure and certain. There is no campaign in which greater error has been taught, or more fallacious views on the leading of cavalry expressed, than will be found as regards the gigantic struggle in the American Civil War. Briefly, so far as the Northern forces are concerned, it was not until 1864, when Sheridan first massed his cavalry, that the fruits of victory were duly secured. In 1862 and 1863 the American cavalry (Federal), practically speaking, was employed only as mounted infantry, and that in separate small detachments, too often without cohesion and without due design. Sheridan, however, taught by experience, became the worthy rival of one of the greatest cavalry leaders that has ever lived, another Cromwell, Ziethen or Seydlitz—that is, the famous Gen. J. E. B. Stuart, commander of the cavalry in Northern Virginia. This latter, mortally wounded in the Wilderness Campaign, while engaged in fighting Sheridan, who then commanded no less than 12,000 horse soldiers, with an equally large force of artillery, is an example of all time of the perfect cavalry leader. The mounted charges he delivered, as at Brandy Station (or Fleetwood), are models alike of maneuver power and skilful leading. On the other hand, he could use his cavalry dismounted, as did Marlborough the Scots Greys at the Schellenberg, on the Danube. We cannot be too careful in our dates of this American Civil War, for the facts are briefly thus: In the winter of 1863-4 the Northern cavalry, under Sheridan, had vastly improved, while on the other hand, that of the Confederates became weak in numbers and badly equipped. Sheridan, in the Wilderness Campaign, moved with 12,000 horse in rear of the army of Lee, and threatened Richmond—and when Stuart died, the Confederate cavalry died with him. * * *

REFLECTIONS ON THE CLOTHING AND EQUIPMENT OF
THE GERMAN ARMY.

BY MEYER, CAPTAIN AND ADJUTANT, FORTY-SIXTH INFANTRY BRIGADE.

(Translated from *Annals for German Army and Navy* by Lieut. F. J. Behr, C. A.,
for MILITARY INFORMATION DIVISION, G. S.)

THE question, how military clothing and equipment are to be prepared for war and peace purposes in accordance with modern requirements, is attentatively pursued and abundantly discussed far beyond profess onal circles. The last wars, namely, the one in South Africa, the Russian-Japanese and the one in our own protectorate in Southwest Africa, have furnished the immediate cause for this. Supposing, officially, but scant material is given publicity on what alterations of importance are still to be looked forward to in the future along this line, yet former experiences in peace have been confirmed by facts which have become known, some of which will be discussed in what follows.

HEAD COVERING.

Before long we will probably have to depart from the form, material and trimmings of our helmet. Endeavor has been made, with success, to improve this head-dress during the last decades, especially since the end of the eighties, but not sufficiently. It is granted that the helmet made of leather keeps out the cold, that the latest models are sufficiently light and are capable of afford ng protection, to a certain extent, against a blow directed not too heavily or too sharply. But other advantages cannot be imputed to the helmet. The openings for ventilation—holes at the top and slides at the rear peak—are not sufficient, for the temperature, which has been observed during heat beneath the helmet, is far too high. A headgear which must be removed, at times, soon after beginning a march, in order to afford relief, cannot be designated as satisfactory to modern hygienic requirements. The trimmings and the polished leather of the helmet betray the wearer in the sun at too great a distance; in acknowledgment of which we wear a red-colored cover over it in the field. The cost of the headgear which the military exchequer has to bear on this account is considerably increased. Has not the time finally arrived to introduce a headgear without positive distinctions like the English helmet for the tropics? It is light, firm, inconspicuous and cheap, cheaper, I believe, than the hats for our troops in the protectorate, but which, so far as I know, has also stood the test well, is also simpler and cheaper than our East-Asiatic and tropical helmet, whose insignia are removed in the field. The fact that our helmet for the army as fitted up at present has behind it a historical past of glorious years must not deter us to assign it to the museum as now out of date, where it will meet with other articles of important epochs.

The want of a peak on the forage-cap of our men has often been painfully felt in the bright sunshine during the hot seasons of the year. Should not the consideration and trial of introducing a forage-cap with a peak recommend itself? To be sure it would be a little more difficult to pack; but it also affords better protection, and on that account the greater weight could also be put up with.

COLOR OF CLOTHING.

The requirement of being inconspicuous discussed in connection with the helmet leads us to the question, v tal for a long time, as to which color might probably be the best for the articles of clothing.

Just on this account non-military circles interest themselves, a great deal perhaps, because the more or less tidy appearance of the troops depends essentially on the color of the uniform. Of course, this is also worthy of consideration; still in German countries esthetic questions unfortunately are accustomed to be very much neglected at the present time.* But the main consideration always continues to be that of the fire effect of the enemy, which necessitates a color that blends as much as possible with the surroundings. He who is no expert in this line may wonder that many states have still not been able to come to a decisive conclusion in spite of the diversely extended experiences gained even in war. The principal reason is there is no color which would be the most favorable in all cases; in each climate, with each light, in rain or snow, with the various hues of the ground, growth, etc., there is but one and always one other color which is at times the most favorable, and since the color is not only the decisive consideration in the selection of the future uniform, it may always be comprehensible why many a military department still delays with its final decision of rigorously binding the state finances for a long while.

Only in Norway, until quite recently, the intention seems to have obtained of retaining the dark blue color for use in war; everywhere else they were either tried or already introduced: Khaki (Japan, China, British-India); olive-green (United States, Norway); blue-gray (Denmark, France, in Italy, the overcoat); light-gray (Austria, Switzerland); blue-green (Austria); gray-green (Denmark, Russia, for some time past); light-blue (in Italy, the trousers). The most of these colors will sufficiently conform to the requirement of being inconspicuous, but more important, perhaps, are the other trimmings of the coat and trousers.

FURNISHINGS OF UNIFORM.

The omission of the high stiff collar and its being replaced by the turned-down collar is but a question of time. The comfort of the men demand, in addition, the placing of side pockets on the coat (as far as is known, was also tried in Germany with the infantry battalion for instructors). The bright buttons must, of course, be done away with; perhaps bronzed aluminum buttons (France) will best replace them; bone buttons (East-Asiatic detachment) break too easily; clasps cannot be fastened as readily as buttons, which is an important factor in case of alarm. The shoulder-straps had better be removed entirely, it being much more practical to place the numbers on the collar. It might be worth while considering, in case of war, the entire leaving aside of every form of designating the troops in order to make it more difficult for the enemy, at least to a certain extent, to ascertain the organizations participating in the war, viz.: the division of the troops from the uniforms of the prisoners. But the preliminary condition would then be, even in case of a large European war, and for such a one particularly, that all the infantry, all the cavalry and all the artillery be uniformed entirely similar, which one could scarcely be brought to do from love for historical tradition. But the doing away with the shoulder-straps would also be a relief in time of peace, which statement will be amply confirmed by the company commanders, who have had to get their companies into shape so often for purposes of parade and review.

*Even the idea to permit the human form to taper to a sharp point (helmet) is non-esthetic, and fortunately is but seldom met with in the history of wars.

OVERCOATS.

It has been discussed to leave the overcoat entirely aside, at least during the warm seasons of the year, and to provide the soldier with an underjacket against cold weather. From the troop commander's standpoint, who requires troops as active as possible and desires to bring them fresh against the enemy even after a long march, the omission of this heavy piece of clothing is desirable. On the whole, however, the question whether one is to favor the retention of the overcoat or not is reasonably not to be decided once for all. If the troops have the overcoat continually with them there will be less sickness and less invalids; on the contrary, even an underjacket—which affords but too little protection for the abdomen and the legs—would often not be sufficient in localities where our troops will probably march and fight for the greatest part. It is moreover pure chance whether, at the existing weather conditions, the bringing up of the overcoats necessary at the approach of fall, which have been left behind during the hot seasons of the year, takes place too late or not. It must be taken into consideration, however, that the rapid development of the auto-trucks can also bring this question nearer its definite solution. The supply department is probably already working to a considerable extent with such vehicles. For if we should once carry on a war against France or Russia, many an instance could be thought of in which the railroads would scarce suffice to bring up reserve, supplies and ammunition in such a campaign. Many a load of overcoats could also be conveyed to the troops at the end of August from the main supply depots by means of automobiles. Once the idea has been approached, possibly later the overcoats can even be transported altogether after the troops on automobiles. For as soon as such vehicles have been introduced to a greater extent for army transportation in war, the columns will become shorter, great distances less perceptible and the useful loads greater.

The omission of the overcoat is a great advantage for handling the firearms in lying down, if the knapsack and a headgear with protection for the neck against rain (helmet, hat, helmet for the tropics), is retained. It frequently happens that, by folding the overcoat flat about the knapsack, the collision between the overcoat and helmet can be avoided and thereby the pushing forward of the latter and the interfering of the aim of the man lying down. This likewise necessitates careful folding of the overcoat, which is often not possible, *e. g.*, in case of alarm or when the overcoat is wet.

Against the cold there are, moreover, apart from the overcoat, two most effectual means of protection that protect the most important places which the cold effects sensibly; namely, the neckerchief and wristlet (pulse warmer). They protect the places where the arteries are on the surface of the body, and where the blood-vessels are also most exposed to the cold. In the field, one would probably disregard the fact that both of these means of protection appear "unmilitary." At all events, the man who wears wristlets can shoot better, since his fingers are not frozen, and this is paramount in the field. At parade they can well be omitted.

FOOTWEAR.

A definite decision has not yet been reached in Germany as regards the most practical footwear. The high boots may become a torture to the officers. The lieutenant has no lasts in his trunk; if the boots become wet, they shrivel up and the unfortunate possessor either cannot

get them on at all while his troop moves off, or if he should have succeeded in getting them on, he will ruin his feet. Lace-shoes with top extensions, or puttee leggings for the mounted and unmounted troops, is the unfailing footwear for war. Good experiences have been gained with the German system of allowing the men to supply their own boots as war-boots, but it must not be forgotten that a man whose own war-boots become unserviceable—which also can happen suddenly—can scarcely have much success with regulation boots. Lace-shoes might be brought along, therefore, on vehicles, in numbers as great as possible—not only as provided, one pair by each man, but still more as reserve.

KNAPSACKS AND CARTRIDGE BOXES.

At present the rucksack,* instead of the knapsack, is very often proposed and thoroughly tried, *e. g.*, in France. This question also, decide as you will, contains advantages and disadvantages in each form of solution. The rucksack can be made lighter; can be packed more rapidly, because the individual objects must not be exactly assigned with a view of utilizing a scanty apportioned packing-room, an advantage in bivouac and in case of alarm. But the knapsack rests firmly and the articles compactly packed in it also cannot move. This has the advantage of fatiguing the bearer less rapidly, provided the rest of the articles of equipment have been practically put in place, *viz.*, when its total weight has been equally distributed about the center of gravity of the bearer. Still the answer to the question, in how eminent a degree this takes place, is to be solved only by extensive trials.

Our cartridge boxes will also soon be remodeled. In the colonial wars small flat cartridge boxes have been utilized as they have already been worn in part by non-commissioned officers of the German Army (engineers). The soldier naturally requires several of such flat pouches, for to lessen the ammunition supply cannot be thought of (on the contrary, if we leave our coats behind, we must rather materially increase it). But this does not harm; it is even useful, for in the long run flat pouches hinder the shooting less in the prone position than such of larger size, and the burden to be carried is better distributed on the body of the bearer with several flat pouches. But not more than four of such pouches can be worn on the front of the waist belt. For this reason one could consider as to whether small pockets, with a capacity for three loaded clips, could not be placed on the outside of the coat at the height of the breast, similar to the long-known costume of the Circassians. Supposing that the men are not to be burdened with ammunition in these pockets during long marches, still the ammunition to be distributed to the troops at the beginning of a fight could be accommodated therein handily and securely. But even apart from this, the pockets would not be unwelcome to the men.

COOKING OUTFIT.

The cooking outfit is perhaps not essentially necessary for each man. In bivouac all the cooking outfits are not used if the company messes together. A light boiler, to be carried along on the ammunition wagon, could be utilized for drawing water. Then but every second man, or two out of three, would require one cooking outfit. The weaker men, who are not accustomed to marching, could then be relieved. The un-

*A form of pack used by mountain climbers in the Alps and elsewhere. An excellent model for light-weight packs. Tr.

pleasant consequence that men, separated from their troop, would have to prepare their own meals, could possibly feel the want of the cooking outfit, might be obviated by the fact that the emergency ration may be distributed in self-contained cooking cans, only to the men, perhaps, not carrying the cooking outfit, since such cans are quite dear.

After the experiences of the last great war one may reasonably expect an increase of intrenching tools, especially the bringing along of more saws (joint saws), cutting pliers and larger spades, with detachable handle, perhaps, to facilitate carrying it. With the infantry a part of this could readily be loaded without detriment on the ever-accompanying and light mobile ammunition wagons up to the time of distributing the ammunition at the beginning of the fight.

SIDE-ARMS.

During the South African War the report was once spread that the English officers had put aside the saber, especially the one having the bright scabbard, and taken in its stead the carbine. As far as I know, this mode of action did not transpire in the Russia-Japanese War; it would also have been quite unsuited to the character of both opponents. The enemy opposed to the British did not permit a hand-to-hand encounter. But when this form of combat takes place—and our probable opponents in a future European war are such brave soldiers that it certainly would take place—an excellent side-arm is required if no gun is available. It does not follow, hence, that our present infantry officer's side-arms are ideal. They are but thrust-weapons; a slight curvature would make them far more effective for the blow, without essentially impairing the availability for the thrust. A mode of carrying like the Russian, or at least so that the grip would be about the height of the elbows, would hinder the bearer less in running, overcoming obstacles, etc. In place of the metallic scabbard, those made from unpolished leather without bright trimmings recommend themselves. Even bronzed metallic scabbards become bright after a short use in the field and shine in the sun. As formerly, a revolver is necessary for a support, not an unwieldy and old-fashioned revolver, however, but an automatic pistol. The latter are manufactured in such an excellent manner in Germany that they could have been introduced a long while ago, which is already the case in part.

As a rule it might be advisable, for the purposes of clothing and equipment, to try a more extended application of aluminum. It is already made use of in many ways for cooking utensils, cups, canteens, buttons, helmets, trimmings, etc. Could it not be further applied at least in alloys, for producing cartridge boxes, harness, trunks, knapsacks or the frames for rucksacks, buckles and hooks and eyes, also for the gun, etc., etc. The endeavor to lighten all burdens, and be it for a few grams only, and thereby raise the efficiency and value of the troops in battle, would be in keeping with such application throughout.

Finally, I still think of another measure which for our military conditions may appear, above all, entirely out of place, but which for the necessary control can still possibly be of some utility, viz., for rapidity of mobilization. It is the custody of the clothing by themselves of the men of the reserves who may be called to the colors in case of mobilization. To begin with, the thought may be mere theory; the subject may be impracticable now from pecuniary and organization points of view. This must be granted off-handed. But if we once take for granted that it is possible for men of the reserve to arrive uniformed at the rendez-

vous for mobilization, there could readily be gained a day, without a doubt, for the mobilization, the transportation to the place of rendezvous and for operations. This day can decide a great deal. Of course, it would first require careful trials, for it is still very questionable whether the majority of the men of the reserve are sufficiently reliable to be entrusted with these valuables, whether places could be found to store these throughout for the men who lack the necessary facility, whether the control (by means of district commands, police and town authorities, etc.) is sufficiently certain of execution, whether the costs, which in consequence of the less time of wearing the clothing linked with this measure, the accompanying losses, etc., are not too high. One has naturally nothing to go by in forming a theoretical judgment. At any rate let the thought be mentioned which, for example, has been accomplished in the Netherlands, as far as I know. Of course, what suits conditions in the Netherlands is a long way from suiting German conditions. Here many experts would have to deliver judgment, of whom I do not count myself as one

[TO BE CONTINUED.]

THE LANTAKA OF THE MOROS.

BY COLONEL PHILIP READE, TWENTY-THIRD INFANTRY.

(*The Mindanao Herald.*)

WHAT is a lantaka? The cut at the top of the first page of the *Lantaka* is a fairly accurate reproduction of a photograph of the small brass cannon, or wall piece, or swivel gun, used for centuries by the Chinese, the Malays, and the Moros of Borneo, also by the Moros of the Philippine Islands and Archipelago. The neighbors of the Philippines, the following lands of several nations, have also known the Lantaka, viz.: the Island of Formosa, belonging to Japan; Pelew Islands, a possession of Germany; the Dutch East Indies; British North Borneo and Cochin China, the latter a colony of France. (See tail-piece.)

* * * * *

In the twelfth century the Chinese used for pyrotechnic purpose a mixture of sulphur, nitre and charcoal now called gunpowder. In 1575-1580, Francisco de Sande was Governor at Manila. In 1578, Figueroa attacked Mindanao and Jolo. Sent an expedition to Borneo. In 1584-1590 Santiago de Vera was Governor. In 1599, large numbers of Moro pirates attacked Cebu, Negros and Panay. In 1628, a large force of Spaniards and Filipinos attacked Jolo and were repulsed. Treaty with King of Mindanao.

These dates make Jamestown and Plymouth seem very modern indeed *If these peoples used Lantakas, it is the oldest portable piece of ordnance that is of record.* * * *

Jernegan says: (Pages 73, 74, 75, subhead: Legaspi, Cebu, 1569.) "At the time of the first expedition to Luzon, the Spaniards had few guns and little ammunition. One-third of their men were without arms. They sent cannon to Mexico as ballast for ships because there was no powder for them. On the 8th of May, 1570, 120 Spaniards and fifteen *paraos*, manned by Visayans, left the river of Panay for Luzon. Martin de Goiti command; Salcedo also went. * * * At ten in the morning, May 19th, they entered the Pasig River. The town was defended

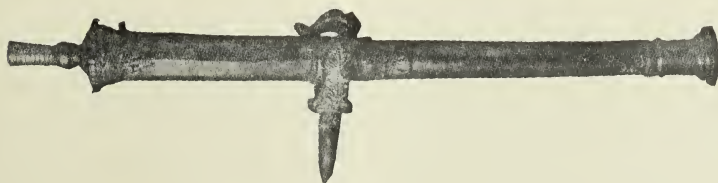
by a palisade of stakes and *small cannon were at the gates*. Hundreds of warriors waited at the water's edge. De Goiti landed, and first met Lakandola, the chief of Tondo, uncle of Soliman. De Goiti and the two chiefs pledged their faith to each other in a blood compact. A few days later, the natives fired upon the Spanish boats without warning. It is said that Soliman *fired the first cannon-shot with his own hand*. The Spaniards landed at once and captured the fort. They burned the town, killing 100 natives and capturing eighty. *They found the clay and wax mold of a cannon over five meters long.* * * * Page 96, Conquest of Brunei.—In 1578 De Sande went with a fleet of forty ships, several hundred Spaniards and about 1500 Filipino soldiers and sailors to the city of Brunei, capital of Borneo. After a short battle, De Sande captured the city. He did this at the request of the Sultan, Sirela, whose brother had driven him from the throne. He took twenty-seven ships and 170 *cannon*. Then his men fell ill and he was obliged to return to Manila. * * * Page 104, subhead: Insurrection in Pampanga—De Vera built the first stone fort in Manila near where Fort Santiago now stand. It was called "Nuestra Señora de Guía." *The artillery for this fort was cast by a Pampangan native called Pandapira*. De Vera also begun to dig the moat which surrounded the city. He built a shore breastwork along the river front. The great wall was not begun till later."

Regardless of place of fabrication, the antiquity and use of the Lantaka for at least four centuries back by piratical, warlike Moros is established.

About six centuries ago, the priests of Mahomet came to the Malay Peninsula and taught their religion in the Islands of Malasia. When the Spaniards arrived the Moros were teaching this religion in Mindanao, Paragua, the Jolo Archipelago, Mindoro and Luzon. Manila was ruled by Mahometan chiefs who had come from Borneo a few years before.

The Moros were sea traders and pirates. They went from one island to another of the Philippines trading goods and slaves. They were the most warlike of the Filipinos. In their swift boats they visited the shores of the Visayan Islands and Luzon. They burned the towns, robbed and killed inhabitants, and carried many into slavery. The Spaniards never could make Christians of them, or entirely conquer them.

Before the advent of steam navigation, the wind-impelled galleons of the sailing Spanish, Portuguese and Dutch in these Asiatic waters were frequently attacked by the Moros. The last named used Lantakas effectively, and it is within the recollection of the Twenty-third United States Infantry that, until the hostile Moros learned the range, power and effectiveness of the regulation army rifle, they refused to sell for 500 pesos the duplicate of the trophy, a pictured representation of which is shown at the top of the first page of our regimental weekly.





The Objective at Bunker Hill.*

THE two addresses delivered before the Bunker Hill Monument Association at Boston on June 17, 1907—one by its President, Dr. John Collins Warren, and the other on the “objective” of the battle by Col. Horace Newton Fisher—come as renewed assurances, were any needed, that the interest in that grand old Revolutionary action will never flag on the spot where it was fought, as, it is to be hoped, it will never lessen the country over. It is gratifying to know that the Association is still urging its project of improving the surroundings of Monument Square and beautifying the immediate site of the obelisk—statuary and landmark decoration being recommended among the new features. “When we realize,” says Dr. Warren, “what has been done at Gettysburg, at Antietam, at Chickamauga, and many another battle-field of the Civil War, in placing monuments to corps, divisions, brigades and regiments, as well as individuals, and in placing bronze tablets to mark the position of troops, it does not seem inappropriate that something of the kind should be attempted at Bunker Hill. Where are the memorials of Stark and his men, or of Putnam and those who rallied with him? The beautiful and impressive statue of Prescott is suggestive of what can be done.”

Colonel Fisher’s address on “The Objective at Bunker Hill” is another contribution to the literature of the battle, which should command attention as being the result of a scientific study of the subject by a veteran soldier. Its value is enhanced by the recovery, on the Colonel’s part, of some original letters, hitherto unpublished, written by the British general, Sir William Howe, explaining the military situation at and around Boston, both before and after the engagement. The manuscripts belong to the private English collections in the possession of Mrs. Stopford-Sackville and Lord Dartmouth.

The “objective” at Bunker Hill developed out of the straitened and humiliating position of the British in Boston after their experience at Lexington and Concord. General Gage was cooped up in the town with the Americans occupying the hills around and threatening to inflict a

**Proceedings of the Bunker Hill Monument Association, Boston, 1907.* With address on the Battle by Colonel Horace Newton Fisher.

further disgrace upon his little force. The arrival from England, on May 25th, of Generals Howe, Clinton and Burgoyne, who were presently followed by a reinforcement of regulars, revived the spirits and discipline of the Boston camp, and plans were laid for the extension of the British lines and an apparent move upon the rebels. The expression credited to Burgoyne, that the pent-up army would soon push out for more "elbow room," explains in part the prompt outlining of a campaign with an objective. Its two features were, first, to strengthen the southern or "Neck" approach to Boston by the occupation of Dorchester and Roxbury, which would menace the American right, and second to occupy Charlestown Heights with Breed's and Bunker's Hill, and thus better protect Boston to the north. Here, too, the Americans would be threatened at their left and center. The British generals agreed on this plan of action on June 12th, and named the 18th as the date for the first or Dorchester advance.

By one of those fortunate providences in war, if we may call them such, that have suddenly scored victories on one side and upset calculations on the other, information of the enemy's intentions reached the American headquarters at Cambridge two days before the 18th, and immediately, for the first time in the contest, our provincial generals found themselves face to face with a real question of strategy and tactics which called for hard thinking and rapid action. As to an "objective," they had had one ever since Lexington, quite as sharply defined as any the British might mature, though subject to alternatives, as circumstances required. First of all they determined to keep the enemy well shut up in Boston with a cordon of works and posts running around from Dorchester to Chelsea, and, secondly, they hoped eventually to drive him out altogether. In the proposed movement of the 18th they saw danger for both of their objects, and it was a problem how most effectively to meet it. The world knows their decision—one of the boldest on record for untrained troops to execute. Instead of waiting to fight it out on the Dorchester side where the topography and their works would favor the enemy, they forced him, by suddenly occupying Breed's and Bunker's Hill on the 17th, to come out and fight on the opposite or Charlestown side on ground of their own selection. From every point of view, it was a hazardous move—taking position in the very teeth of the British—but they appear to have convinced themselves that defeat there would not necessarily endanger their main position, while disaster to the enemy right there could be made more telling than at any other point. The famous battle followed, confirming the provincial strategy. Against the American defeat was the frightful roll of the enemy's losses—an experience not repeated in English history until the Boer War, where storming "Kopjes" proved hardly less fatal. Colonel Fisher's view of the result is the true, historical one: "In conclusion," are his words, "it may be said of the Battle of Bunker Hill, that it not only defeated the British campaign objective—to raise the siege of Boston—and won the American campaign objective—to continue the siege of Boston until the British Army evacuated the town to avoid surrendering; but it also assured the support of all the other colonies, which ultimately resulted in the independence of the United States as a sovereign nation, and now as a world power."

In his discussion of the British "objective" and in his comments on the generalship displayed at the battle, Colonel Fisher indulges in occasional opinions and statements which we do not recall in other accounts of the action. They are interesting as new estimates of men and movements. The admiration he expresses for the three generals,

Howe, Clinton and Burgoyne, who were all engaged on the 17th, is the compliment of a soldier to soldierly qualities. No one ever questioned their personal bravery and loyalty. Not often has a commander led an attacking line with the coolness, confidence and perfect unconcern for his own safety that marked the conduct of Howe at Bunker Hill. His escape from death was miraculous. All three were true born Englishmen and fulfilled the traditions of their profession and rank. But whether they possessed rare military genius and exhibited it in a conspicuous degree at Boston and Bunker Hill may possibly be questioned. Colonel Fisher considers them as no ordinary or average generals and finds in their plan of operations for the 18th a "brilliant" and "masterly" conception. They were famed for courage, dash and deep comprehension of "grand tactics" and "strategy." If so, Bunker Hill must have painfully jarred their anticipations.

It is difficult to discover wherein their just proposition to seize Dorchester Heights to the south, was any more than an obvious move to make. So far from its having the flavor of dash and brilliancy, the generals themselves acknowledge that it was to be made cautiously, or as Howe says: We propose "to possess Dorchester-Neck by two redoubts; and from thence, if found practicable without much risk, to attack the post at Roxbury. To entrench a couple of hundred men there would, I imagine, effectually secure the town from surprise on that side." Burgoyne adds that the operation would have been "very easy." So, also, in the occupation of Charlestown and its hills no resistance was expected and the move would have interest only in its future bearing, or, as Howe again says: I would then "either attack the rebels at Cambridge, or perhaps, if the country admits of it, endeavor to turn that post. In either case, I suppose the rebels will move from Cambridge and that we shall take and keep possession of it." He seems to have had little faith, however, in his ability to carry out his objective, even after the arrival of the "four battalions from Ireland," then daily expected. "You will see," he concludes, "that I have no great hopes that we shall be able to do much this campaign with the strength we shall have." In this matter of his plans, in fact, we find his newly unearthed letters in the Dartmouth Collection a sort of preparative for failure and disappointment in anything he might undertake. Lexington may have impressed him. He describes the back country as exceedingly strong for defensive warfare. The rebels' mode of fighting—and he was to see something of it in the next two years—was "to get behind stone walls, or any other covering, giving their fire from thence and retiring to load; and then returning to renew the attack as before." Again, he was unready. Few horses, no forage. "Salt provisions very short." Military chest "at the lowest ebb." No survey of the country. More troops, more supplies, more flat-boats—were among his pressing needs. Under the circumstances, anything "masterly" was out of the question. On the contrary, his letters seem intended to explain inaction or defeat in advance.

In the conduct of the battle itself, we have still another phase of the "objective." How far did the British attempt to out-manuever or surprise the Americans on the 17th? Or was it just what it appeared to be, a desperate, stand-up fight, where men and leaders alike thought of nothing but blows to give and ground to hold, and victory to win, without attempt at strategy and tactics? Colonel Fisher with instinctive military keenness looks for something below the surface and finds evidence or indications that Howe planned not only to capture the Americans on the hill before him, but turn the action into an immediate advance upon their main lines and headquarters, and carry out his original Chales-

town scheme upon the spot. He hoped, as our author implies, to sleep in Cambridge that night. This is a new theory projected into the battle accounts.

The acceptance of this theory turns on one's reading of the British reports and study of their published plans of the engagement. On one of his own carefully prepared drafts of the field, accompanying his address, Colonel Fisher represents one of the enemy's vessels, named the *Symmetry*, at anchor near the mouth of Willis Creek on the Cambridge side of the harbor. On board are assumed to be a battalion of Marines and the Forty-seventh Regiment of Foot from Clinton's division, who would be in readiness to land in the rear of the Americans in case Howe drove them from Bunker Hill. By prompt co-operation of all the British detachments, the close of the day might find Cambridge or other important points in their hands. Meantime, Howe was to so maneuver in front of Bunker Hill as to induce the rebels to reinforce the troops already there, and thus demolish or haul in so many more in the net he had laid. But that was a day for quick decisions and instant action, and we confess to finding no grounds for supposing that Howe was playing a clever game with his opponents. Both he and Gage report that no sooner were the Americans discovered fortifying at Charlestown, where they could annoy the shipping in the harbor, than "it was determined they must be removed from thence." Troops and boats were then ordered out "for that purpose." It was a case of driving off intruders and drubbing them well for their insolence. We fail to discover any other objective; nor are we able to substantiate the assumption that the Forty-seventh and the Marines were on board the *Symmetry* at all that day, on whose presence there the larger objective is based. As we read Howe's orders for the 17th, the Forty-seventh Regiment was very clearly held in Boston until ordered over as a reinforcement to the Charlestown side about two o'clock in the afternoon. It had been instructed not to march to the wharf until the two previous embarkations had been made; or, as the order runs: "The Forty-seventh and First Battalion of Marines will also march to the North Battery after the rest are embarked, and be ready to embark there when ordered." As confirmatory of this view, the plan of the action drawn by Lieutenant Page, Howe's topographical engineer and aide-de-camp, on which every movement of the day appears to be marked, the course of the Forty-seventh runs directly, by dotted lines, from Boston to its position in the final assault upon the redoubt.

Whatever incidental differences of opinion Colonel Fisher's address may elicit, no one can read it without being impressed with the extent of research, close study and military judgment its pages disclose. Bunker Hill is here before us again with all its dramatic surprises, its historic bearing and patriotic inspiration.

H. P. J.

The True Story of Andersonville Prison.*

AS my name appears on page 187 of this book as having arrested Major Wirz, May 7, 1865, the Editor of the JOURNAL has requested me to write a short review of it.

During the fall and winter of 1864 the whole North was excited and horrified by accounts of the atrocities practiced upon our soldiers

**The True Story of Andersonville Prison.* By James Madison Page, late Second Lieutenant Sixth Michigan Cavalry. (New York and Washington: Neale Pub. Co., 1908.)

confined in Southern prisons, especially at Andersonville; brief accounts of some of these were published in the newspapers, and were more than verified when the exchange of prisoners was renewed; and by those who were so fortunate as to escape.

At the end of the Civil War, and especially after it was known that Major Wirz was to be tried, there was a public clamor in the North for a victim to satisfy the desire for revenge for such inhuman treatment as our men had suffered in Rebel prisons. Personally, I then thought, and have always thought, that it was a great mistake to arrest, try, condemn and execute a subaltern for the offenses charged; and the Commission that tried Major Wirz evidently thought so, as they found his superiors guilty of conspiring (with Wirz) to starve the Union prisoners at Andersonville. Like every jailor, Major Wirz had a disagreeable duty to perform; and in his defense plead that he only obeyed orders. He paid the penalty, whether or not he had exceeded his orders.

In the spring of 1865 I was on the staff of Maj.-Gen. J. H. Wilson, when Macon was occupied by United States forces. He sent me to Eufaula, Ala., to notify General Steadman of the armistice; on the way back, I heard that Major Wirz was at Andersonville in charge of some Union prisoners (all who were able to travel had been removed to Florida, when we captured Selma, Wirz remaining with the sick and a few attendants). May 7th I was ordered to go to Andersonville and arrest Wirz and bring him and the prison records to Macon—which I did. May 19th I was ordered to take him, the records and twenty-four stands of captured colors to Washington and deliver them to the War Department. At the trial I was called as a witness to testify as to what I had seen and done at Andersonville. That ended my connection with the case.

As only a part of Mr. Page's book refers to Andersonville Prison, I shall consider that only in my remarks, excepting to note that he was captured in September, 1863, and confined at Belle Isle until transferred to Andersonville, February, 27, 1864, where he remained until September, 1864 (about seven months), when he was transferred to Millen, and exchanged two months later.

The author's attempt to minimize the horrors of prison life at Andersonville, and his opinion of Major Wirz (page 79), appear to be the result of what he says others were blamed for (page 93), and for which his comrades rebuked him, viz.: "obsequiousness to curry favor with Wirz." On page 59 he says: "A few months after I reached Andersonville while Captain Wirz was passing me, I inadvertently (?) raised my hand to my cap, and he returned the salute. * * * The salute was the beginning of our friendship; my comrades rebuked me, etc." (See note at bottom of next page.)

Now for the facts as to the conditions at Andersonville while the author was there; these are shown by extracts from the official reports of Confederate officials, and the sworn testimony of witnesses at Major Wirz's trial.

Andersonville Prison was completed in the winter of 1863-4. Gen. J. H. Winder was in command of the station; Captain Wirz was assigned to command the prison in April, 1864, and continued in command until arrested, excepting while on sick leave in August, 1864.

The prison was originally intended to confine 10,000 prisoners; and the stockade enclosed about eighteen acres—of this area a strip fifteen feet wide, between the dead line and the stockade, was "off limits"

for the prisoners—a water course ran lengthwise of the enclosure, materially reducing the area available for use of the prisoners. The records show the number confined as follows:

7,500 in March, 1864.
10,000 in April, 1864.
15,000 in May, 1864.
22,000 in June, 1864.
29,000 in July, 1864.
33,000 in August, 1864.

During the summer of 1864, on account of the crowded condition, it was enlarged by adding three acres. A Confederate officer (Colonel Chandler) made an official report in August, 1864, that the actual space available for each prisoner was *six square feet*, "there being scarcely room for all the prisoners to lie down at the same time."

On page 61 the author says, "there was a stream of clear water running east through the prison"; and on the next page he says, "the stream running through the grounds was clear with quite a rapid current, and was not the sluggish stream, without the least perceptible motion, that some have described it."

This may have been the case before the prison was occupied, but it was certainly not the case after it had been occupied for months by more than twice the number of prisoners intended for it. The banks and bed of the stream were a putrid mass of rotten filth when I saw it, May 7, 1865, and alive with maggots; and must have been in that condition a long time; certainly, for the last half of the seven months the author was there. This is amply confirmed in the evidence of Confederate officials as published in General Chipman's pamphlet. In considering this subject, it must be remembered that this stream carried the drainage of the hospital, and the camp of the prison guard (some 800 men), both located above the stockade, and was their only water supply. (See Chapter 3, General Chipman's pamphlet.)

As a result of such unsanitary conditions for many days in the summer of 1864, the deaths averaged nearly 100 per day. Of the sick within the stockade Dr. Jones (a Confederate surgeon) in his official report, says, "the haggard and distressed countenances of these miserable, complaining, dejected, living skeletons, crying for medical aid and food, and the ghastly corpses, with their glazed eye-balls staring up into vacancy, with the flies swarming down their open mouths, and over their ragged clothes, and infested with vermin, formed a picture of helpless, hopeless misery, impossible to portray by word or brush."

In a similar manner, every material statement in the book tending to present a rose-colored view of the life of our soldiers in the Andersonville Prison can be refuted by the evidence given in General Chipman's pamphlet, except for the comparatively few cases of those who were so obsequious to their custodians as to be granted special privileges.

Referring again to page 187, I must correct the statement that I dined with Major Wirz; I had left Macon by train early in the morning, after a hearty breakfast, and had taken a good lunch with me, not expecting an invitation to dine there. I had seen the filthy prison pen, and also the cemetery—which was enough to take away a healthy appetite,

NOTE.—An officer of my regiment who was captured at Beverly Ford, June 9, 1863, told me that he saw a Federal prisoner mobbed and nearly beaten to death in the Salisbury Prison for saluting a Confederate officer. (H. E. N.)

even had I been hungry—I ate my lunch on the cars, returning to Macon. As for my stern looks and silent demeanor, it would have been remarkable if such sights had caused me to look pleasant and made me affable.

HENRY E. NOYES.

SAN DIEGO, CAL., May 7, 1908 (43 years later).

The American Navy.*

THE book shows signs of hasty compilation, as well as poor judgment, if not prejudice. In order to popularize it, it does not seem necessary to have smothered all evidence that its author was a Naval Academy graduate and an ex-naval officer. After Mahan's efforts along these lines, this present attempt to exploit the influence of the American Navy on its history seems badly digested. It should have been possible for the Naval League to have inspired a work both more scholarly and more logical.

The bitter attacks that the author so frequently makes upon our Congress and statesmen, as well as against the British, seem ill-advised. Surely Jefferson, even though opposed to a large navy, cannot, in fairness, be said to be totally lacking in all patriotic instincts. Nor is it fair to accuse the British of encouraging the attacks of the Barbary pirates on our commerce. Moreover, the author claims that had the energies devoted to privateering during the Revolution been expended on building up a navy, the British could have been wiped from the face of the seas. This is manifestly absurd, since a short time later the combined strength of the fleets of both France and Holland, consisting of over one hundred and fifty ships of the line, proved unequal to the task. For many years afterward we had not as many as one of these ships, and even had we succeeded in raising such an immense fleet, it would have required our entire population to furnish crews.

After reading the boastful accounts of our naval victories over the British, it is somewhat disconcerting to compare them with Mahan's opinions. He said that during the Revolution our navy was utterly unable to make any headway against the British; that with the exception of the victory on Lake Champlain, so insignificant in size, our sea power had little or no influence, except as exemplifying what we might have accomplished had our navy been of proper size. Furthermore, he adds, that the successful ending of the Revolution, "at least at so early a date, was due to the sea power in the hands of the French and its improper distribution by the English authorities." The author of "The Short History" (Spear) ignores completely this assistance rendered by the French fleet. Similarly in the War of 1812, Mahan says that "except for prestige, never was blood spilled more uselessly than in frigate or sloop actions of that day." This makes rather flat that heading of the chapter describing the victory of the *Constitution* over the *Guerriere*, labeled, "The Decisive Battle of the War." Furthermore, in the attempt to squeeze out all possible honor, it would seem that the author at times is inclined to twist his accounts more than is justifiable; although he goes to great pains to publish a mass of statistics, nowhere does he acknowledge, as does Mahan, that our famous captures of British frigates were made by ships one-third to one-half more powerful.

**A History of the American Navy.* By John R. Spear. Illustrated. Charles Scribner's Sons, 1908.

The history is an alleged hero story, but at times it seems to build up, only later to take great delight in tearing down. After lavishing great praise on such well-known heroes as Lawrence, Decatur and Porter, he proceeds later to severely castigate them because the enemy finally succeeded in capturing vessels under their command. Indeed, the author's list of approved model heroes, limited to John Paul Jones, Biddle, Cushing, Morris, Farragut and Wainwright is evidently based on the principle of non-surrender.

The picture painted of Jones on the deck of the *Ranger* is surely most alluring. Strenuosity can be no new fad. This famous fighter, while commanding a fleet in action, is pictured as lashing with his own hands his ship alongside the enemy, both training and firing the guns and repelling single-handed the attempt of the British to board. Between times he is able to knock down the hatches those of his officers and men who are desirous of surrendering. Small wonder some of them began to despair if, as alleged, the ship's guns were demolished or blown up, her side completely shot away, except for a few timbers, with "water swelling to the hatches in the lower hold, flames near the magazine, three hundred prisoners liberated," and one of her own fleet pouring broadsides into this gallant ship. Surely there could be no more vivid illustration of the motto "Don't give up the ship."

The necessity of fleet training in order to insure proper co-operation is clearly shown in this instance, as well as that of our victory on Lake Erie and, indeed, in all engagements of our fleet.

The author, though emphasizing the importance of superiority of fire, is not happy in showing what is meant by it. Apparently at times he confuses it with accuracy; at other times, with rapidity, and at other times with weight of shot. He does not disguise his antipathy against seeking the protection that armor affords.

The best chapters in the book are undoubtedly those describing the fighting with the Barbary States, and later the attempts of the Confederates to beat off the Federal fleets by that heterogeneous collection of railroad-iron-plated armorclads, rams, fire-rafts, torpedoes and submarines. It is interesting to note that it was necessary to load down with ballast these earliest efforts at armor-protected ships in order to sink their water lines to their proper depth.

In describing at great length the Spanish War, the author is most painstaking to be fair and accurate, unless it be said that, as usual, he is more profuse with praise than is necessary.

But perhaps the greatest praise that could be awarded such a book is that it is interesting. It is.

T. H. L.

Sixty Years in Upper Canada, with Autobiographical Recollections.

SIXTY Years in Upper Canada, with Biographical Recollections, is the title under which is published in Toronto, Canada, by William Briggs, a very entertaining book by Mr. Charles Clarke, late clerk of the legislature of Ontario.

The author is an octogenarian, who was born in England, in 1826, so that his recollection of men and events covers the very unusual period of nearly eighty years. During this period he has seen machinery that was unknown in the eighteenth century become the common property of the husbandman. Steam, from being a mere mechanical curiosity, has become the general locomotive power on land and water, and

electricity has been brought under very general control, instead of being the toy of the school-room.

A description of the election methods of the time of Mr. Lytton Bulwer, who was opposed as a candidate for political preferment against a Colonel Sibthorpe, principally noted for having introduced the mustache upon the human face, indicates very clearly that not only enthusiasm for party candidates ran rampant, but that it only too frequently became destructive of property.

Apprenticed, according to the custom of the period, to a dry goods concern, and left behind by his mother, who remarried and moved to Canada, the author deserted his employer when within a few weeks of the termination of his apprenticeship, and cast his lot with the neighbors on our northern boundary.

As the editor of a newspaper and political office-holder the author becomes familiar with the leading events of the history of Upper Canada. That it is impossible for any one to give an unprejudiced account of the transactions that go to make up current history is evident, yet there is a very interesting account of much that has taken place during the period covered. He does not attempt to make clear why it is that a traveler passing from Buffalo to Duluth over the chain of great lakes will necessarily note that on his left hand there is evidence of a high order of cultivation that is in evidence in but few places on his right hand, but he does show that a vast work has been accomplished in building up and making into an harmonious whole the Government of Canada. That this country has permitted to pass from its ready grasp the opportunity of acquiring Canada as an integral part of the United States is manifest from a study of his narrative, although he does not attempt to discuss that fact.

E. F. G.

A Service School Manual.*

THIS work is published, with the approval of the commander-in-chief, "for the information and instruction" of the officers of the organized militia of Massachusetts. It consists almost wholly of extracts from Army Regulations, United States Statutes, the Articles of War, War Department orders, and standard text-books.

The first few pages, treating of the relations of the army to the militia, may be considered as original, at least in the errors which they contain. Paragraph 40 says, "the military forces of the United States in time of war fall within two general classes: those of the Regular Army and those of the United States Volunteers." Where, we ask, does the militia come in? Is it not available in time of war; if so, is it part of the army, or part of the "United States Volunteers"?

In paragraph 57, under the head of Recapitulation, we read: " * * * the President, as Commander-in-Chief of the land forces of the nation, has at his disposal in any emergency calling for armed intervention: first, the forces of the *Regular Army* * * * ; next, the officers and men making up the various units of the *Organized Militia*, who * * * cannot be compelled to serve for a period of more than nine months unless they volunteer as a body to serve for a longer period, when they

**The Service School Manual*, M. V. M. [Massachusetts Volunteer Militia], compiled by the Secretary, Lieut. William L. Simmons, First Corps Cadets. M. V. M.

take on the characteristics of United States volunteers; and, finally, the President may resort to the *reserve militia*, * * * who, in case of call, would be organized into military units in the numbers called for, and mustered into the volunteer army of the United States for a period of two years." If this passage means what it says, it stands for the following ideas, every one of which is erroneous:

1st. That organized militia in the service of the United States who volunteer as a body to serve longer than they are legally obliged to thereby "take on the characteristics of United States volunteers."

2d. That reserve militia may not be mustered into the service of the United States as militia.

3d. That the President has power to call for volunteers as he has to call out militia, of his own initiative.

4th. That the reserve militia can all be brought out by calling for volunteers; in other words, that they would all answer such a call.

This work is intended to be a text-book for use by officers in service schools. It is, perhaps, unnecessary that militia officers should understand the military organization of the nation, but there is certainly nothing to be gained by misinforming them on the subject. The time that they can command for study is limited. Its precious moments should not be wasted in stocking their minds with error.

A chapter entitled "Aid to Civil Power" contains ten sections of the militia law of Massachusetts applicable in cases of domestic disturbance, and a number of useful suggestions relative to the equipment and handling of militia on riot duty. But along with them we find this curious prescription: "Case shot, canister, and grape * * * will be employed in preference to shells." We hope that no militia is basing its tactics upon the use of canister, which was obsolete before the Spanish-American War, or of grape, which was discarded before the Civil War.

The extracts, forming the bulk of the work, have been more or less modified, or superseded by subsequent publications. Apart from this they are free from serious error, but such minor errors as a compilation admits of are not lacking in them. We note the following:

Par. 99. "Battalion staff officers" * * * "consist of *the adjutant, the quartermaster and the commissary.*" The part in italics should read: "*the adjutant and the quartermaster and commissary.*"

Par. 159. "In the field mess, furniture is limited to one tin cup, knife, fork and spoon," etc. The proper meaning of this paragraph requires a comma after the word *field*, and not after the word *mess*.

Par. 382. Here we read of camp being formed "in column of *divisions*," meaning, of course, the two-company divisions that disappeared with the passing of Upton's tactics some twenty years ago.

Par. 472 requires the First Sergeant, when he repairs at "First-Sergeant's call" to the Adjutant's office, to wear his side arm. Has not the first sergeant enough to do? There are frills enough to our military dress, especially in the militia, without this irksome innovation.

Par. 142. "Arms must be kept in racks, and accoutrements and sabers must be hung up by the belts." We ask, are not sabers arms? If a man has to wear his belt without the saber, what is he to do with the saber? Why should not sabers be kept in racks? Why should they not hang by a ring without the belts?

Par. 476 prescribes the upper left-hand corner as the place on a visiting card for the letters P. P. C. If a place is to be prescribed for these, it might as well be one that has the sanction of common usage. The text on this point has been amended by the compiler.

This work is about the size of the Field-Service Regulations and

bound in cloth. The paper and print are good, but there is no index. By revision or rewriting it may be suited to the use for which it is intended; in its present form it cannot be recommended to any class of readers.

J. B. JR.

Magnetism and Electricity.*

THE book is intended for elementary instruction and is, on the whole, well written, and the explanations satisfactory; the "Water Analogy to Induction Coil," however, is very poor, and it is not obvious to the reviewer how it can be of any assistance to the student. Under the heading "Voltaic Cell," we are told that "the sulphuric acid attacks the zinc, and combines with it giving off bubbles of hydrogen, which go across and settle on the copper plate." The bubbles of hydrogen formed in the normal operation of the cell are formed at the copper electrode, and do not come across, as bubbles, from the zinc. Any bubbles formed at the zinc are due to local action, and they rise to the surface without going across to the copper. The old theory of depolarization is used in this book; hydrogen is first supposed to be set free and then oxidized again, before it accumulates in appreciable quantity. In the Daniell cell, hydrogen is first supposed to be set free on the copper, and then to react on the sulphate of copper, forming free sulphuric acid and setting free copper. It is an experimental fact that, when a copper and a zinc electrode are immersed in sulphuric acid, zinc is dissolved from the zinc electrode and hydrogen gas is deposited on the copper electrode. When the zinc is immersed in sulphate of zinc and the copper in sulphate of copper, the solutions being separated by a porous diaphragm or by gravity, zinc is dissolved as before, but copper, instead of hydrogen, is deposited on the copper electrode; the amount of sulphate of zinc in the cell increasing and the amount of sulphate of copper decreasing, as the current flows. It is a gratuitous assumption, which is not in any way supported by experimental evidence, that hydrogen is first set free and then substituted for copper. It is an experimental fact that free sulphuric acid does not accumulate in the cell, so the first assumption requires another one: that the free acid somehow gets across the cell and combines with the zinc. To explain this assumed fact is quite as difficult a problem as the original one; that is, to explain depolarization. In justice to the author, however, it is proper to say that the persistence of this defective theory of the voltaic cell is due to the influence of no less an authority than Michael Faraday himself, as it is a legitimate outgrowth from some of that great scientist's teachings, and is still taught in many books still.

TOWNSEND WOLCOTT.

The Panama Canal—Two View-Points.

TWO discussions of the Panama Canal, one by the distinguished author and Ex-Minister to France, the Hon. Jno. Bigelow;† another by Gen. Henry L. Abbot, U. S. A.,‡ than whom no engineer living is better qualified to speak with authority, have added

**Notes on Magnetism and Electricity*. With an Introduction to Telephony and Geography. By J. S. Iredell, Army Service Corps. London. Gale & Polden, Ltd., 1908. 110 pages, 7 x 4½ inches, 51 cuts and diagrams.

†*The Panama Canal and the Daughters of Danaus*. By John Bigelow. (New York.) Baker & Taylor Co., 1908.

‡*Present Status of the Panama Canal Project*. By Brig.-Gen. H. L. Abbot. (Reprinted from *Annals American Academy Political and Social Sciences*.) 1908.

new interest to the many conflicting reports as to the true status of this great work.

Mr. Bigelow's paper is largely a plea for the Låbnitz System of excavation, consisting of subaqueous ramming and dredging and the doing away with the dry haul. As all the work is done by dredges, the possibility of washed-out road beds and similar complications is eliminated during the rainy season.

According to Monsieur Bunan Varilla, formerly chief engineer of the French Panama Canal Co., whom Mr. Bigelow frequently quotes, the Låbnitz method of cutting would mean a vast saving to the Government, for the figures given by the Chief Engineer of the Manchester Canal (Mr. Hunter) show an average cost at 25 cents a cubic yard, or $\frac{1}{10}$ th of the cost fixed by the Panama Canal Commission in 1906. Mr. Bigelow condemns, with sound reasoning, the location of locks and dams at Sosa and Gatun, in view of their possible destruction by hostile fleets. He also claims that Monsieur Bunan Varilla, as far back as 1887, advises the placing of the locks on the Pacific side at Pedro Miguel and Miraflores. Recently Colonel Goethals has urged the abandonment of the Gatun dam, which plan, according to Mr. Bigelow, has the approval of the President, while General Abbot, in a foot-note, announces that Colonel Goethals has advised also the construction of the Pacific locks at Miraflores—four miles inland from the coast. Mr. Bigelow's paper is a forceful protest against what he terms reckless waste of public funds—hence the title of his essay—but one may play with figures as skilfully as the juggler does his silver balls, always deceiving the eye and prompting one to abandon all efforts to explain his necromancy. Nor does this comparison imply that Mr. Bigelow's data are not correct—it means that when brought in contrast with General Abbot's statistics they are illuminated with an entirely different light.

For example, according to Mr. Bigelow, the expenditures paid out and authorized up to June, 1908, will have been \$87,608,568.58.

Now read what General Abbot has to say: "The technical cost of construction should in no way be confused with the incidental expenses involved in the purchase of land of the railway, the sanitation of Panama and Colon, or the commercial operation of the Panama Railway." According to General Abbot's figures, therefore, the real cost of excavation up to December 31, 1906, from the date of transfer, would be: \$26,441,656.66—to June 30, 1907, \$39,132,157.72. "The aggregate outlay, including right of way during these two periods, were, respectively, \$84,449.32 and \$98,205,110.37," says General Abbot, "and the gross error of charging aggregate outlay to canal construction proper is thus apparent."

The Act of Congress, approved June, 1906, favoring the lock canal, estimated a total cost of \$139,705,200, but this did not include the previous outlay of \$16,000,000, and expressly excludes all future cost of sanitation and the administration of the Zone Government. General Abbot's paper also shows that with due allowance for the reduction of the labor day from ten to eight hours the cost, since the approval of the Act of 1906, would be enhanced approximately 20 per cent., "but," writes General Abbot, "thus it appears that even omitting this last increment of the estimate, only about \$23,000,000 should be considered as expended on the adopted project June 30, 1907, or, in other words, there remained unexpended \$117,000,000." General Abbot concludes a most interesting paper, scientific and logical in its deduction, with the following remarks: "In fine, an era of rapid progress has been inaugurated

under an efficient administration * * * and the expenses have been kept within reasonable limits."

In contrast with General Abbot's paper, Mr. Bigelow's essay, whatever the merits of its suggestions, or the force of its literary style, would have been much more acceptable to the average American thinker had the author omitted cynical references to the Hon. Secretary of War and the American engineers.

Such an attitude impairs the scientific value of his paper, and suggests strongly personal, rather than technical, grounds for protest.

N. S. JARVIS.

The National Guard Infantryman.

I NSTRUCTIONS for the Infantry Private of the National Guard," by Capt. John W. Norwood, N. C. N. G., late first lieutenant Twenty-third Infantry, United States Army. Arms and the Man Publishing Co., New York.

This handy manual, somewhat smaller than the official Guard Manual, is intended for the self-instruction of intelligent and serious-minded privates of the National Guard. It consists of four chapters. The first treats of Discipline, the second of the Duties of a Soldier in General, the third of Guard Duty, and the fourth of Rifle-Firing.

The reader will be puzzled by the atrocious metaphor—"Neatness is the first cut of the soldier." He may understand what is meant by "the par excellence of discipline," but we defy him to parse it.

On page 35 we read: "— if you observe any *one* approaching * * * you must move toward *them* * * * and halt *them*." On the same page "Reliefs of Detachments of the Guard" should read "Reliefs *or* Detachments of the Guard."

In the Manual of Guard Duty, United States Army, under the head of Night Orders, there is some obscurity due to confusion of the terms "person" and "party," and of the acts of advancing to be challenged and advancing to pass. It cannot be said that the author contributes to the elucidation of these obscurities. In fact, his text on some points is not as clear as that of the official Manual. On page 34 he says: "Never let two persons or parties advance at the same time," although he has stated that, on recognition, a party of any number of persons must be advanced. He literally requires the sentinel to pass each member of a party separately.

Under the head of *How to enforce your orders*, the student-private is told: "You may not arrest commissioned officers," and a few lines farther on, "You should not attempt to place commissioned officers in arrest except for the commission of some crime or some very serious breach of the peace."

In case of fire, he is directed how to act when the fire is on his post, but regarding the far more likely case of its being off his post, he is not enlightened. The official Guard Manual makes no distinction between these two cases.

He is told that between retreat and reveille, guards are turned out only "by order of the officers entitled to inspect and relieve the guard." The Guard Manual says "by direction of any person entitled to inspect it." That person need not be an officer. The silence of the Guard Manual as to who may inspect the guard is less seriously felt in the

army than it is in the National Guard. Some light might well have been thrown on this point.

In spite of the defects pointed out, which may easily be remedied in a subsequent edition, this little work may be commended to our citizen soldiers. It is, on the whole, well adapted to its purpose. Men who study it will save their officers considerable trouble, and can hardly fail to increase their chances of advancement.

J. B., JR.

Elements of Hippology.*

CAPTAIN F. C. MARSHALL, Fifteenth Cavalry, has written, and the Hudson Press has printed, a second edition of "Elements of Hippology," prepared for the Department of Tactics, United States Military Academy.

It makes a compact volume of 224 pages, with many very excellent illustrations, mostly from photographs taken especially for this work. In writing the book, he has had recourse to the best literature on the subject, and has used his knowledge generally in a very effective way.

The definitions are explicit and easy to be understood. The book is badly balanced—too much space is taken up with "forms" and "rules for registering." A different arrangement of subjects might have been made, by which much repetition would have been avoided.

It will be found a very useful book for the instruction of non-commissioned officers of mounted troops. It can be recommended strongly for such use. The definitions and axioms, *in large type*, are a good feature of the book.

G. S. A.

Manual of Military Field Engineering.

UNDER this title, so familiar to officers of our army, Maj. W. D. Beach, the author, has caused to be issued by The Franklin Hudson Company, of Kansas City, Mo., the ninth edition of his work on that subject.

The necessity for a new edition enabled the author to bring the work down to date by including the results of experience of the Russians and Japanese. The most noticeable changes are to be found in the profiles of field-works and hasty intrenchments which both contestants found it necessary to modify during the progress of the war.

The *kneeling* trench was never used by the Russians, except when they found it impracticable to construct the *standing* trench, and the *lying* trench was never seen. Some cuts showing types of both Russian and Japanese trenches have been inserted in this latest volume. There is also added a plate showing the model of the siege works against Erlungshan Fort "A," siege of Port Arthur, which is very interesting.

There is also added a brief description of the apparatus for sending and receiving messages by wireless telegraphy, which is very clear and instructive. In fact, there is sufficient new matter added to this well-known book to warrant those owning previous editions in purchasing a copy of this latest edition.

E. F. G.

**Elements of Hippology* (2d edition). By Capt. A. F. C. Marshall, Eleventh Cavalry. Kansas City. Hudson Press, 1908.

Hints on Horses.*

A SMALL volume, with short notes on camels and pack-animals, also a few practical suggestions in the training of polo ponies and players, and gymkhana training and racing, collected by Maj. H. P. Young, late Fourth Bombay Cavalry, has been received for review.

This is marked as a fourth edition, published by Gale & Polden, Aldershot, sold at one shilling, net.

The book is the work of a man who seems to be thoroughly familiar with horses and understands handling them well; probably understands treating them when ill, or out of condition, and seems to be thoroughly familiar with all of the tricks of professional horse-dealers.

The book contains many terms with which Americans are not familiar. Its literary style could not be worse. It would hardly find a place in any collection of books offered for use in our service. Much that it contains might have been condensed. A subject is often treated in many different parts of the book, or partially treated; on the whole, it is a very unsatisfactory bit of book-making.

CAVALRY.

Pictures of War.†

THE pages of history would be colorless, indeed, without the aid of the artist's pencil, or the vivid tints which sometimes illuminate the record. Italy gave to the world the great Leonardo; France produced Vernet, Meissonier and Detaille, the latter a soldier, and Russia the lamented Verestschagin, who depicted with much realism the horrors of war. Yet, if the naked truth is sought and the grim face of war, without its glamour, desired, none of these has handed down more faithful glimpses of life in the camp and of death on the battle-field than BRADY, the photographer of the American Civil War.

It may seem a curious blending of great names with that of a modest citizen who carried his camera to the front, regardless of personal safety, and amid the booming of cannon and the charging of squadrons made sun-pictures for posterity.

At the close of the war Mr. Brady had accumulated an immense collection of photographic plates, part of which were purchased by the United States Government; part became the property of Edward Bailey Eaton, of Hartford, Conn., who has recently published an illustrated quarto containing many impressions from the original plates.

The book is well worth the price (\$3.00) per copy. Perhaps the rarest picture is the excellent half-tone reproduction of a photo of the Battle of Antietam, taken just in rear of the firing line during the engagement.

T. F. R.

Officer's Manual.

THIS manual, written ostensibly by its author, Capt. James A. Moss, Twenty-fourth United States Infantry, "for the use of subalterns," consists of two parts. The one, or book proper, containing matter not subject to change by the War Department, and the other, or

**Hints on Horses.* By Maj. H. T. Young, late Fourth Bombay Cavalry. London. Gale & Polden, 1908.

†*Original Photographs taken on the Battle-field during the Civil War of the United States* by Matthew B. Brady and Alex. Gardner. From the collection of E. B. Eaton, Hartford, 1907.

pamphlet, containing matter that is subject to change. The latter will be kept up to date annually by the author.

This manual contains a vast amount of information that is valuable to all officers both regular and militia. The contents are "customs of the service" in a handy form for quick reference, and covers a large portion of the things that are useful to know when in the service, and ignorance of which frequently causes embarrassment at least. This book would not be out of place in the company orderly room where it could be readily accessible to the enlisted men. E. F. G.

General Howard's Indian Experiences.*

GENERAL HOWARD'S simple, straightforward and unpretentious narrative is of interest for the general reader, and doubly so to the older officers of the Army, to whom it will recall scenes and incidents of river and prairie of Wyoming and Idaho, mountain of Montana and dreary desert of Arizona, now passed into history to be no more known forever.

The author finds necessary to condense the experiences of many years into the limits of a single volume, and touches lightly upon many incidents which simple justice would wish might be treated with a more trenchant pen.

It is a matter of regret that among the many educated Indians of recent years there has not arisen one who, as historian of his race, might tell the whole story of its intercourse with the whites—the story of hypocrisy, duplicity, falsehood, treachery, robbery and violence—of specious promise made only to be broken, of solemn treaty duly and formally signed and sealed only to be openly violated or neglected and utterly forgotten, that have formed the almost unbroken record of the conduct of the white race toward what we fondly term our "Indian Wards." General Howard no doubt tells the truth, and nothing but the truth. He does not tell the whole truth. And for the fair fame of a nation professing Christianity it is perhaps just as well that it should never be told.

J. N. A.

Optics of the Telescope.†

THE lecture begins with an elementary exposition of energy, which may not be considered entirely germane to the subject, by some critics, as the laws of optics were established before the principle of energy was discovered; and, further, the discovery of that principle did not revolutionize the subject of optics as it did some other branches of science. The book gives a reasonably complete digest of the subject, carrying the reader through the different steps up to the prismatic field-glass, which is the last thing described. The explanations are clear, on the whole, and the book justifies its title and the claims of its author.

TOWNSEND WOLCOTT.

**My Life and Experience among our Hostile Indians.* By Maj.-Gen. O. O. Howard. (Hartford.) A. D. Worthington Co., 1908.

†*Optics of the Telescope. A Short Elementary Lecture.* By Capt. W. Ellershaw, R. A. London. Gale & Polden, Ltd., 1908. 40 pages, 7 x 4½ inches, 11 plates, containing 24 diagrams.

Army Signaling.*

THE conditions, as given in this work, on which distances in flag-signaling depend, the care of telescopes, and the chapter on signaling in the field are well worth studying and remembering.

There are also, in this book, valuable hints concerning the use of the prismatic compass and on map-reading.

C. O. HASTINGS.

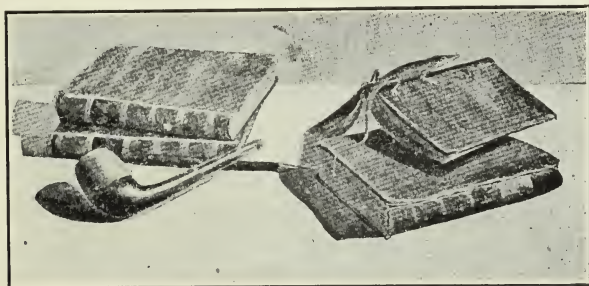
Our Exchanges.

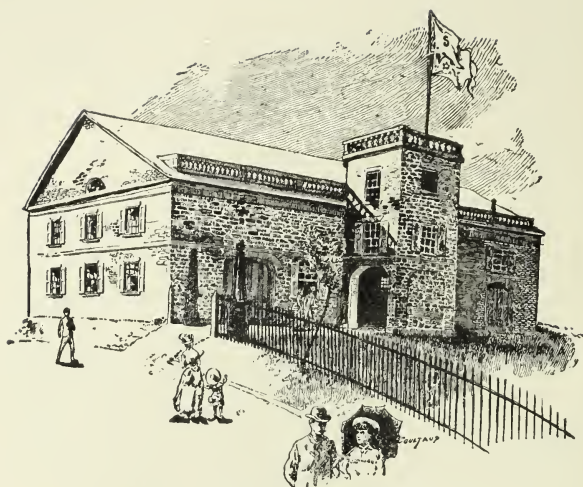
American Society of Civil Engineers (to date).
Army and Navy Journal (to date).
Army and Navy Chronicle (London) (to date).
Artilleri-Tidskrift (to date).
Arms and the Man (to date).
Bulletin American Geographical Society (June).
Canadian Military Institute (to date).
Current Literature (June).
Journal of the Association of Military Surgeons (June).
Journal of the Royal Artillery (June).
Journal of the United States Artillery (June).
Journal of the U. S. Cavalry Association (April).
Journal of the U. S. Infantry Association (May).
Journal of the Royal U. S. Institution (June).
Journal of the Western Society of Engineers (June).
La Revue Technique (to date).
La Belgique Militaire (to date).
Our State Army and Navy (Penna.) (to date).
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Political Science Quarterly (June).
Proceedings of the U. S. Naval Institute (June).
Review of Reviews (to date).
Revista di Artiglieria e Genio (to date).
Revista Del Ejercito Y Marina (June).
Revue de l'Armee Belge (to date).
Revue Militaire (to date).
Revue Artillerie (to date).
Royal Engineers' Journal (to date).
The Army and Navy Life (to date).
The Arrow, Indian Industrial School (to date).
The Cavalry Journal (London) (April).
The Century Magazine (June).
The District Call (to date).
The Medical Record (to date).
The Pennsylvania German (June).
The Popular Science Monthly (June).
The Scientific American (to date).
The Seventh Regiment Gazette (to date).
United Service Gazette (London) (June).
United Service Magazine (London) (June).

**Guide to Army Signaling.* By R. L. Q. Henriques. The Queen's Regiment. London. Gale & Polden.

Received for Library and Review.

- Modern Egypt.* By the Earl of Cromer. 2 vols. (New York) The Macmillan Co., 1908.
- The Indian Industrial School, Carlisle, Pa.: Its Origin, Purposes, Progress and the Difficulties Surmounted.* By Brig.-Gen. R. H. Pratt. (Carlisle, Pa.) The Hamilton Library Association, 1908.
- My Life and Experiences Among Our Hostile Indians.* By Maj.-Gen. O. O. Howard, U. S. Army. (Hartford, Conn.) A. D. Worthington & Co., 1908.
- Proceedings of the Bunker Hill Monument Association at the Annual Meeting, June 17, 1907.* (Boston) 1907.
- The American Nation: A History. Vol. 25. America as a World Power, 1897-1907.* By John Halladay Latané, Ph. D., with maps. (New York and London) Harper & Bros., 1907.
- In Korea with Marquis Ito.* By George Trumbull Ladd, LL. D. (New York) Charles Scribner's Sons, 1908.
- The True Story of Andersonville Prison. A Defense of Maj. Henry Wirz.* By James Madison Page, late Lieutenant Sixth Michigan Cavalry. (New York and Washington) The Neale Pub. Co., 1908.
- A Summary of the History, Construction and Effects in Warfare of the Projectile Throwing Engines of the Ancients, etc.* By Sir Ralph Payne-Gallevy, Bt. (New York, Bombay and Calcutta) Longmans, Green & Co., 1907.
- The Great Plains.* By Randall Parrish, Second Edition. (Chicago) A. C. McClurg & Co., 1907.
- Some of the Triumphs of Scientific Medicine in Peace and War in Foreign Lands.* By Louis Livingston Seaman, A. B., M. D., LL. B., F. R. G. S., 1908.
- The Life of Charles A. Dana.* By James Harrison Wilson, LL. D., late Major-General, U. S. V. (New York and London) Harper Bros., 1907.
- Modern Education from a Military Viewpoint.* By Charles W. Larned, U. S. Military Academy. North American Review Publishing Co., 1908.
- Fire Discipline: Its Foundation and Application.* By Lieut. Stewart Murray, First Battalion Gordon Highlanders. (London) Gale & Polden, Ltd., 1908.
- Doniphan's Expedition and the Conquest of New Mexico and California.* By William Elsey Connelley. (Topeka, Kas.) 1907.
- Report of the Santiago Campaign, 1898.* By Arthur L. Wagner, Lieutenant-Colonel, U. S. Army, Assistant Adjutant-General, January, 1899. (Kansas City, Mo.) Franklin Hudson Pub. Co., 1908.





THIS MUSEUM OF THE MILITARY SERVICE INSTITUTION OF THE UNITED STATES,
GOVERNOR'S ISLAND, NEW YORK HARBOR.

Editor's Bulletin.

Accessions
to
Museum.

THE Museum has received (as a loan) from Watervliet Arsenal four "Lantakas" (bronze, wall pieces or boat-guns; see description on page 142).

The
Library.

The Library of the Institution, under an arrangement pending, will soon be made accessible to Members and Associate Members within the limits of the United States for reference or by circulation as the nucleus of a military section of the Public Library of the City of New York (Astor, Lenox and Tilden Foundation), under rules prescribed for its maintenance and operation as a loan.

The
Company
Non-Com-
missioned
Officer

"The Company Non-Commissioned Officer," etc., is the subject for the Seaman Prize (No. 2) for the current year (due November 1). Its importance, especially to the Line, should stimulate competition and lead to excellent results in military training and company administration.

**National
Guard
and
Member-
ship**

National Guardsmen, both commissioned and enlisted, are eligible, and are cordially invited to become Associate Members of the MILITARY SERVICE INSTITUTION; commissioned officers, upon their own application, and non-commissioned officers and men, on written application, endorsed by a member or associate of the INSTITUTION. For additional information address the "Secretary MILITARY SERVICE INSTITUTION, Governor's Island, N. Y."

**Arms
of the
U. S.**

The tailpiece on page 24 of the present number of the JOURNAL is copied from a design prepared under the direction of The Gettysburg National Park Commission for the Monument now in process of construction to commemorate the services of the Regular Army in the Battle of Gettysburg.

**A Notable
Essay**

A notable paper of great originality and scientific research entitled "Senility," by Maj. CHARLES E. WOODRUFF, Medical Department, U. S. Army (which bears upon the "Elimination" question), has been received for early publication in the JOURNAL.

The author says: "This article has been in course of preparation for fourteen years, but was not published for self-evident reasons. It is not a hasty generalization, but the result of long study of the problem of a system of promotion which will get the maximum work out of each officer, utilize his original ideas and prevent the disastrous results of stagnation."

**Complete
Copy of
The
Journal.**

The Journal—from No. 1 to date, complete—may be purchased upon application to the SECRETARY M. S. I., Governor's Island, N. Y.



Journal
of the
Military
Service
Institution
1878
1908

Governor's
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N. Y. H.

THE JOURNAL

SEPTEMBER-OCTOBER, 1908



OME papers recently received for publication in the JOURNAL:

- I. "THE MILITARY NECESSITIES OF THE UNITED STATES AND THE BEST PROVISIONS FOR MEETING THEM." (Honorable Mention Essay.) By Major S. M. Foote, Coast Artillery.
- II. "READJUSTMENT OF RANK." By Col. C. J. Crane, 9th Infantry.
- III. "HOW BEST TO INSTRUCT OFFICERS OF OUR ARMY IN TACTICS." By Capt. C. D. Rhodes, 6th Cavalry.
- IV. "THE FRENCH INVASION IN MEXICO." (Graduating Thesis, Army Staff College, Class 1908.) By Lieut. Luis Monter, Mexican Army.
- V. "POST PROFESSIONAL LIBRARIES FOR OFFICERS." By Lieut. G. R. Catts, 10th Infantry.
- VI. "SOLDIERS' CLOTHING; ITS ILLEGAL PURCHASE, AND HOW TO PUNISH THE OFFENDING PURCHASER." By Capt. H. R. Hickok, 15th Cavalry.
- VII. "LOOSE-LEAF SYSTEM FOR RECORD OF CORRESPONDENCE." By Capt. W. W. Russell, Adj. 1st Infantry, Vermont National Guard.
- VIII. "ARE MEMBERS OF THE MILITARY FORCES IN THE PHILIPPINE ISLANDS ENTITLED TO TRIAL BY JURY?" By Capt. Ed. Sigerfoos, 5th Infantry.
- IX. TYPES AND TRADITIONS OF THE OLD ARMY. 1. "The Sixth Infantry—Address upon the Hundredth Anniversary of the Organization of the Regiment" (Capt. Ryther); 2. "A Reminiscence of a Famous Regiment" (Major Van Ness); 3. "Chancellorsville Revisited" (A. C. Redwood).

THE PUBLICATION COMMITTEE invites contributions of original papers, translations and comments upon current topics. Attention is called to "Gold Medal," "Seaman," "Short Paper," and "Santiago" prizes described elsewhere.



MEMORANDUM

THE MILITARY SERVICE INSTITUTION OF THE UNITED STATES is an association of officers of the Army and National Guard for the promotion of the military interests of the United States. Membership entitling to a vote in the control of the INSTITUTION is open to officers of the Army, upon their own application, without ballot. Any commissioned officers of the Organized Militia may become Associate Members by a ballot of the Executive Council upon their own application; all other persons of good repute, including enlisted men of the National Guard, are eligible to Associate Membership, by ballot upon a written application endorsed by a Member or Associate Member of the INSTITUTION.



MEMBERSHIP comprises eligibility to compete for the Gold Medal and other annual prizes of the INSTITUTION; subscription to the bi-monthly JOURNAL; admission to the Museum and the use of books composing the Military Section of the New York Public Library, which, by a pending arrangement and prescribed rules, may be loaned to Members or Associates of the MILITARY SERVICE INSTITUTION only. Annual dues \$2.50. Life Membership \$50.



THE JOURNAL of the MILITARY SERVICE INSTITUTION is the only bi-monthly magazine in the United States, controlled exclusively by officers of the Army, which is devoted to the interests of all branches of the military service, and is indispensable to the complete professional equipment of military students.

The Military Service Institution.

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MEMBERSHIP AND DUES.

Membership dates from the first day of the calendar year in which the "application" is made, unless such application is made after October 1st, when the membership dates from the first day of the next calendar year.

Initiation fee and dues for first year \$2.50; the same amount annually for five years subsequently. After that two dollars per year. This includes the Journal. Life membership \$50.



Gold Medal—1908.

First Prize—Gold Medal, \$100 and Life Membership.

Second Prize—Silver Medal, Honorable Mention and \$50.

I.—The following Resolution of Council is published for the information of all concerned:

Resolved, That a Prize of a Gold Medal, together with \$100 and a Certificate of Life Membership, be offered annually by THE MILITARY SERVICE INSTITUTION OF THE UNITED STATES for the best essay on a military topic of current interest, the subject to be selected by the Executive Council, and a Silver Medal and \$50 to the first honorably mentioned essay. Should either prize be awarded more than once to the same person, then for each award after the first, a *Clasp* shall be awarded in place of the medal.

1. *Competition to be open to Members and Associate Members only.**

2. Each competitor shall send three copies of his essay in a sealed envelope to reach the Secretary *on or before January 1, 1909*. The essay must be strictly anonymous, but the author shall adopt some *nom de plume* and sign the same to the essay, followed by a figure corresponding with the number of pages of MS.; a sealed envelope bearing the *nom de plume* on the outside and enclosing full name and address, should accompany the essay. This envelope to be opened in the presence of the Council after the decision of the Board of Award has been received.

3. The prize shall be awarded upon the recommendation of a Board consisting of three suitable persons chosen by the Executive Council, who will be requested to designate *the essay deemed worthy of the prize*; and also in their order of merit those deserving of honorable mention.

In determining the essay worthy of the prize, the Board will be requested to consider its professional excellence, usefulness and valuable originality, as of the first importance, and its literary merit as of the second importance. Should members of the Board determine that no essay is worthy of the prize, they may designate one or more essays simply as of honorable mention; in either case, they will be requested to designate one essay as first honorable mention. Should the Board deem proper, it may recommend neither prize nor honorable mention. Should it be so desired, the recommendation of individual members will be considered as confidential by the Council.

4. The successful essay shall be published in the Journal of the Institution, and the essays deemed worthy of honorable mention shall be read before the Institution, or published, at the discretion of the Council, which reserves the right to publish any other essay submitted for a prize, omitting marks of competition.

5. Essays must not exceed ten thousand words, or twenty-five pages of the size and style of the JOURNAL (exclusive of tables), nor contain less than five thousand words.

II.—The Subject selected for the Prize Essay of 1908 is

“WHAT IS THE CAUSE OF THE RECENT FALLING OFF IN THE ENLISTED STRENGTH OF THE ARMY AND NAVY, AND WHAT MEANS SHOULD BE TAKEN TO REMEDY IT?”

III.—The Board of Award is named as follows:

Rear Admiral CASPAR P. GOODRICH, U.S.N.

Major-General WILLIAM F. DUVALL, U.S.A.

Brig.-General EDWARD S. GODFREY, U.S.A.

GOVERNOR'S ISLAND, N. Y.,
Jan. 1, 1908.

T. F. RODENBOUGH,
Secretary.

*As amended Nov 13, 1907.

1908

Annual Prizes—1908

THE SEAMAN PRIZES.

(Founded by Major L. L. Seaman, M.D., LL.B., late Surgeon, U. S. V.)

One Hundred Dollars.

Seaman
Prize
I

For best essay on a subject selected by Major Seaman and approved by Council; competition open to all officers and ex-officers of Army, Navy, Marine Corps, Marine Hospital Service, Volunteers or National Guard; in other respects same as Gold Medal prize except that essays are limited to 15,000 words, and are due November 1.

Subject: "The Medical Department of the United States Army: Upon what lines should its much needed Reorganization be instituted?"

Board of Award: Col. P. F. HARVEY, M.D.; Capt. CHARLES LYNCH, M.D., and Capt. N. S. JARVIS, M.D., U. S. A.

Seaman
Prize
II

Fifty Dollars.

(Rules same as Prize I, except that essays shall comprise not less than 2,000 nor more than 5,000 words.)

Subject: "The Company Non-Commissioned Officer: How can his efficiency be best promoted and his re-enlistment be secured?"

Board of Award: Brig.-Gen. J. P. MYRICK, U. S. A.; Lieut.-Col. R. L. HOWZE, U. S. A., and Capt. J. H. McRAE, Gen. Staff.

Santiago
Prize

THE SANTIAGO PRIZE.

(Founded by the National Society of the Army of Santiago de Cuba.)

Fifty Dollars.

For "best article upon matters tending to increase the efficiency of the individual soldier, squad, company, troop or battery," published in the JOURNAL M. S. I. during a twelvemonth, ending December 1; awarded upon recommendation of Board selected by President N. S. A. S. C.; competition limited to officers of the Army and National Guard below grade of Lieut.-Colonel; essays not less than 1,000 nor more than 5,000 words.

Short Paper
Prizes

HANCOCK PRIZE.

Fifty Dollars.

For best short paper on matters affecting the *Line* of the Army, published in the JOURNAL during twelve months ending May 1.

FRY PRIZE.

Fifty Dollars.

For best short paper on matters affecting the *General Service* not covered by Hancock Prize, published during the twelve months ending Sept. 1.

Essays to be not less than 1,500 nor more than 3,500 words.

Publisher's Department.

Surgeon W. M. Garton, U. S. Navy, who is attached to the U. S. S. *Ohio*, has been making some tests with the Elliott ear protector as a device to protect the hearing against the concussion of the blast in heavy gun fire. The test was conducted during the record target practice, in salvo fire, and during the calibration tests. It was observed that the greatest shock of concussion was caused by the semi-automatic three-pounders. The experiments were made with the Elliott device and with bits of cotton in all possible combinations, using, for instance, in some cases the Elliott protector in one ear and the cotton in the other, under which conditions it was observed that there was an appreciable difference in favor of the device. No inconvenience was reported as observable upon the removal of the protector as was the case with cotton when it was used. The medical officer pronounced the protector as most advantageous and recommended its issue to the members of gun crews on naval ships. His report contained the warning against an indiscriminate stuffing of the ears with cotton which impairs the hearing, found not to be the case with the protector.

—*From Army and Navy Register.*



HARNESS CO. INCORPORATES.

Takes Over Business Heretofore Conducted by Studebaker Bros.

The Studebaker Harness Company has been incorporated under the laws of the State of Indiana, with its manufacturing plant and main office in the city of South Bend.

The company succeeds to and takes over the entire harness manufacturing business of the Studebaker Bros. Manufacturing Company. Its capital stock paid in is \$100,000.

Improved facilities have been arranged for that will give the Studebaker Harness Company a modernly equipped, up-to-date factory, prepared to enlarge its scope as occasion may require and take care of a rapidly growing trade. The company will manufacture all grades of harness, collars, strap work and patent leather saddlery.

Its officers are Clement Studebaker, Jr., president; U. G. Speed, vice-president and general manager; N. J. Riley, treasurer; Scott Brown, secretary.

The company will be represented in a selling capacity by its own

force of traveling salesmen, and in addition will enjoy all the facilities afforded by its affiliation with the several branch houses and 5,000 selling agencies of the Studebaker Bros. Manufacturing Company.



The musical instruments made by *C. G. Conn Company* are better adapted than any other to withstand the rigors and hardships incidental to the strenuous life of traveling musicians connected with the bands of circuses, tented shows, minstrel and concert companies. This contention is supported by the fact that the bandmasters and soloists of nearly every well-known traveling organization in America indorses the merits of, or use the *C. G. Conn Company* Instruments.

The war with Spain and its attendant struggle for supremacy in the Philippines afforded an opportunity for testing the adaptability of the Conn Instruments to withstand the ravages of war, when the musician is oftentimes called upon to intrust his musical instrument to the tender mercies of the transport wagon and shoulder a rifle, or should the comparatively safe refuge of the transport wagon be unavailable, the instrument is probably slung across the shoulders and allowed to dangle and bump against any obstruction that may present itself; or likely as not it may be used as a rest for sighting the rifle, or in case of a large instrument, as a shelter from the missiles of the enemy.

That the *C. G. Conn Company* Instruments proved equal to all and everything that was required, and more than was expected of them, is demonstrated by the cordial indorsement of the army and navy musicians, from chief musician down to the Cymbal beater, whose letters of commendation have been published from time to time in *C. G. Conn's "Truth."* The bandmasters of both army and navy have shown their confidence in the substantial quality of the Wonder Instruments not only by making requisitions for them on the Quartermaster-General of the United States Army and of the Navy, but by expressing their entire approval of their merits after receiving and putting them to the most severe test imaginable.

The *C. G. Conn Company*, Elkhart, Indiana, will be pleased to furnish completed catalogues, photographs of instruments and terms of purchase.

JOURNAL
OF
THE MILITARY SERVICE INSTITUTION
OF THE
UNITED STATES.

"I cannot help plead to my countrymen, at every opportunity, to cherish all that is manly and noble in the military profession, because Peace is enervating and no man is wise enough to foretell when soldiers may be in demand again."—GENERAL SHERMAN.

Vol. XLIII.

SEPTEMBER-OCTOBER, 1908.

No. CLV.

Honorable Mention Essay*

THE MILITARY NECESSITIES OF THE UNITED
STATES, AND THE BEST PROVISIONS FOR
MEETING THEM.

BY MAJOR STEPHEN M. FOOTE, COAST ARTILLERY.

GOLD MEDALIST, M. S. I. (1897).



THE military history of the United States, from the earliest settlement of the colonies down to within the past ten years, has been marked by a lack of adequate preparation for even a defensive war. Over 300 years' war with the Indians, resulting in the conquest of the vast territory comprised within our present boundaries was replete with massacres, defeats and failures, due to insufficient preparation. The Revolution, War of 1812 and Civil War each began with reverses to our arms. In the Mexican and Spanish Wars the enemy was so inefficient that our small forces were successful at the very outset. But whether successful or not at the outset, the tenacity of our people has enabled them to triumph in the end, over all foes, domestic or foreign. So that we look complacently upon the future, believing that, whatever comes, we are sure to succeed eventually, even though we may suffer defeat and humiliation in the beginning. Such, at

*Submitted in competition for the Gold Medal—1907.

least, was our attitude until the Spanish War, in which our unearned successes seemed to overdraw on a most generous allotment of good luck. Since then the close observer of public opinion in the United States notes a change, gradual and only half-confessed, perhaps, but decided nevertheless, looking to a more adequate recognition of our military necessities and a more efficient preparation for national defense. This change is voiced in appropriations by Congress for coast defense; legislation for increasing the army and perfecting its armament and organization; larger appropriations for the organized militia, and legislation to improve and make more uniform its equipment, armament, organization and instruction. The present time, in fact, seems not unpropitious for securing good provisions, if not the best, for meeting the military necessities of the United States.

It will prove more beneficial to take up the discussion, not from an ideal or purely theoretical standpoint, but from a practical standpoint, keeping in mind our history, laws, form of government, present status of foreign and domestic affairs and the attitude of the people, with whom rests the eventual determination of the military policy to be pursued. It is assumed that in our diplomatic policy we shall continue to maintain the Monroe Doctrine and to place special restrictions on Oriental immigration; at the same time taking, in general, a firm though non-aggressive stand upon international questions. It is proposed to take a broad and comprehensive view of our military affairs, touch lightly on those matters which are of local importance only and those which are in a fair way to satisfactory adjustment, devoting attention mainly to subjects of far-reaching importance which have not, up to the present time, received due consideration.

MATERIAL OF COAST DEFENSE.

In our Civil War the first Confederate attacks were on Forts Sumter and Pickens. The combined land and naval attacks by the Union forces on Forts Donelson and Henry and Island No. 10; Forts Jackson and St. Philip, Vicksburg; Fort Morgan, Savannah, Charleston and Fort Fisher were of paramount importance in crushing the Confederacy. If the South had possessed a navy the North would have had to rush not only to the defense of Washington, but to that of every seacoast town and harbor from the Chesapeake to Portland.

In the Spanish War our Asiatic fleet captured Manila Bay, the key to the Philippines. The object of our land campaign to

Santiago was to aid our fleet to enter that fortified harbor. Imagine the condition of affairs if Spain, at the time of the Santiago Campaign, had been able to send a battleship fleet to attack our Atlantic coast.

In a foreign war the first attention of any country on the seacoast must be to protect the coast.

Fortunately the defenses of our coasts, including the insular possessions and the Panama Canal, are making reasonable progress and are in a fair way of being made thoroughly effective within a comparatively few years. Our attention has hitherto been given almost entirely to the Atlantic and Gulf seaboard, but there has recently loomed up in the Pacific a world power that impels our gaze to the westward, where lie those detached possessions of ours like stepping stones to the Asiatic coast; of possible commercial value in establishing and maintaining trade relations with the Orient, but of great military weakness unless strongly protected by land and sea.

The withdrawal of our Atlantic fleet to the Pacific, though an extreme case, emphasizes the necessity of having the land defenses completely equipped, not only with guns and ammunition but with submarine mines, searchlights and fire control apparatus, thus insuring so efficient a defense of the fortified points as to leave the navy free to operate at a distance without compromising the safety of our great cities, harbors and coaling stations.

It takes time to manufacture and deliver ammunition for coast defense. There should be an adequate supply stored in the magazines in time of peace.

We cannot rest easy until the Pacific coast defenses of both mainland and islands are completed and supplied, the Pacific fleet strengthened and the Panama Canal opened. The quicker and more quietly these great works are accomplished, the more certain we are to avoid serious trouble in the West.

REGULAR ARMY.

During the past ten years the Regular Army has seen considerable service, has been engaged in practice marches and rather extended maneuvers simulating war conditions; the officers have been compelled to devote themselves to the theoretical as well as the practical aspects of their profession; the arms, equipments and uniforms are of the latest and most approved type; the system of training in the various branches is such as

has been evolved from peace and war experiences of our own and foreign armies. The natural supposition, therefore, is that our Regular Army of some 65,000 men is as good as, if not better than, that of any army of equal size in the world. But somehow we do not feel that this is quite so. Compare our army now with the little army that we had ten years ago; men do not seem so keen for the service, there are too many desertions, there are not recruits enough to keep the organizations filled. What are the causes? What the remedies?

Our men are better clothed, better housed, better fed now than ever before. To be sure they have more work to do than formerly, but still not as much as in civil life. Yet the record shows that the number who every year have yielded to the temptation to quit the service has been steadily increasing. Wages have been raised in almost every field of labor, and a job of some sort is waiting for any man who is willing to work. So we find that in this era of unprecedented prosperity, with a pressing demand for labor at good wages for every able-bodied man of intelligence and character, such as is required in the army, men think they can do better in civil life. When times are hard the ranks are full; when prosperous, depleted. It is believed that a reasonable increase in pay to overcome the discrepancy between the relative value of the pay scale in 1898 and 1908 is only fair and proper, that it would result in more recruits, fewer desertions, a greater number of reenlistments and a keener interest in the service.* Besides the condition of small pay, there are, without question, other causes more or less remote and doubtful, but the principal trouble is the one above outlined, and the remedy suggested will eliminate that trouble and clear the case for such further treatment as may be indicated by future developments.

On account of the large amount of service required of our troops in the Islands, now and so far as we can see in the future, it is believed that an increase should be made close up to the authorized strength of 100,000.

To recruit the army to war strength requires the addition to each organization of a number of recruits equal to about half its peace strength. It is believed that in emergency these men would be obtained without difficulty. The spirit of love of country was never greater in the United States than it is to-day, and if a demand similar to that of '98 should arise, the response

*This paper was submitted prior to January 1, 1908.

would be as prompt and complete as then. But we cannot rely upon patriotism to cause men to enlist in times of peace. Patriotism implies an attitude of self-sacrifice. There must be an apparent want that cannot otherwise be satisfied before men feel the impelling force of this half-dormant quality. But the very emergency that would bring about a call for recruits to raise the army to war strength would arouse patriotism and fill the ranks.

The officers of the Regular Army, through the garrison and service schools, are well instructed in the duties pertaining to company officers of the various arms, but there is need of an institution for the uniform instruction of older officers in the latest approved methods of warfare. The Army School of the Line should be reserved for lieutenants of the line. The Army Staff College should be at Fort Leavenworth, but its curriculum should not be dependent upon the curriculum of the school. The present Staff College is little more than a second year of the Infantry and Cavalry School. The Army Staff College should be suited to the attainments and requirements of older officers, and open to all line and staff-officers above, say, the middle of the relative list of captains.

There are not enough officers for the performance of all the duties that they are wanted for in time of peace. To meet this demand all officers on four-year details should have their places filled, as is now done in the case of details to the Staff Department. To fill the increased number of vacancies in the grade of second lieutenant, provisions should be made to send a larger number of cadets to the United States Military Academy as soon as they can be accommodated.

MILITIA.

The Organized Militia, or as it is more popularly known, the National Guard, of the several States is soon to be organized, trained, uniformed, armed and equipped like the Regular Army; ready in all respects to take the field whenever called out.

To bring about the uniformity of all the National Guards is a most difficult undertaking. These are State forces, and each State has its own militia laws. The United States Constitution, by express terms, gives Congress power "to provide for organizing, arming and disciplining the militia," at the same time "reserving to the States respectively the appointment of the officers and the authority of training the militia according to the discipline prescribed by Congress." These provisions bring

about a division of responsibility and authority between Congress on one hand and forty-five or more State Governments on the other. To raise the general standard of the National Guard and make it uniform upon the model of the Regular Army was the object of the Dick Bill passed by Congress five years ago. To induce compliance with its provisions that law declared that any State failing to comply within five years should not participate in the national appropriation for the militia. Even this inducement has failed in many States to bring about the desired result.

No one who has not seen the National Guards of States in various parts of the country can realize what a difference there is between them, not only in personnel, but in discipline, instruction and general efficiency. Some company organizations have no armories, and go for weeks at a time without a single drill; others drill several hours every week in their magnificent regimental armories. In some States very few men outside of the contestants for the team to attend the national rifle contest receive any systematic target practice. In others nearly every man is put through a course, and many excellent shots are developed. Most of the National Guard is in camp for a few days every year, either by themselves, or more often in company with regular troops, taking part in maneuvers.

The present militia laws go about as deeply into the Federal control of militia as the Constitution allows, and the Federal appropriations for arms and supplies, target practice and participation in maneuvers go even beyond what was contemplated by the Constitution. Yet more should be done in order to get the greatest amount of benefit out of what is being done. The Federal government should render more assistance in the way of uniform and systematic military instruction and inspection of *all* the National Guard. In time of peace regular officers on duty with the National Guard should be specially selected officers of the active list, not below the middle of the relative list of captains. They should be detailed for four years and be assigned to duty with a number of troops not less than the equivalent of a brigade, even if one officer had to serve with two or more smaller States, and two or more officers with each of the larger States.

There has been for some time two distinct ideas about the present organized militia. Some advocate the idea that each organization must be prepared to volunteer in a body in case of war, so as to become at once a part of the Volunteer Army. Others think that the militia should be prepared to take the field

for a short period in an emergency, to return to their homes when the occasion for their service is past. The former idea prevailed at the time of the Spanish War, and the experience gained in carrying it out does not warrant a repetition.

It is unquestionably the better plan to let the States keep and handle the militia in war as in peace, according to the provisions of the Constitution, subject to Federal service for only three specific purposes: "To execute the laws of the Union, suppress insurrections and repel invasions." Their services are more likely to be needed for domestic purposes during the turbulence of war than during the general quiet of peace. At the same time they are on hand to turn out in emergencies for short periods as national forces. They thus form, in time of war as well as in peace, a military force for State purposes and a reserve to the Federal Army. Another function that they will perform, more important in some respects than either of these, is that they will form at all times a school from which will come most of the volunteer officers and many volunteer enlisted men, without breaking up their organization and without unduly impairing their strength. A great many men of importance in the community having a liking for the military would take pleasure in belonging to National Guard organizations, but who, on account of family or business ties, would not feel that they could give up everything and go into a war that might take them away for years. The interest these men have in military matters and the interest they inspire in others may be, in the long run, of more service to the country than if they went in for the whole period of the war. Some organizations are composed altogether of men in the higher walks of life, organizations well drilled, well disciplined, at least half of whose members would make good officers of volunteers. It certainly would be a foolish waste of good material to send such men into a war as an organization, instead of drawing upon them for officers of raw volunteers. Instead of going out as one regiment they should turn out one, two, three or more regiments, and at the same time keep their own ranks full. The places of men joining the volunteers could readily be filled by temporary enlistments.

VOLUNTEERS.

Our traditional reliance in war is upon volunteers, and owing to our isolation from other great nations, our people vaguely rely upon raising and setting on foot a sufficient number of

volunteers before any power would have time to land a large army on our soil. This idea, vague though it may be, amounts to a settled conviction, and there is no use in running counter to it or trying to get around it. The people rule and we must bow to their will. A standing army of 100,000 men is the limit they will go under present conditions, and militia of a few thousand over that number seems to be the limit for the State forces. Liberal provision is being made to raise both, each in its own sphere, to the highest state of efficiency. It therefore devolves upon military people, accepting these irrevocable conditions, to devise and elaborate a practicable scheme for raising and setting on foot an adequate war force within the space of a few weeks, and do this without incurring much expense before the fact of war itself is actually upon us.

In the first place, it will be sufficient to simply remind ourselves of the preparedness of the great powers, both east and west, in trained armies, powerful navies and large number of vessels suitable for transport service, of the swiftness with which the first blow falls after the last smooth words of diplomacy are spoken; of the absolute impossibility, in these days of instantaneous and universal communication, for the unprepared nation secretly to make ready during the period of diplomatic activity, either to strike or fend a blow. Therefore we must stay our hands until diplomacy ends. Three weeks to one month after that the enemy may land his first forces on our shores. During this time we must prepare to meet these forces with regulars and militia, and soon thereafter to be strong enough to limit their sphere of action and eventually to utterly defeat them.

We never have had any system for organizing, training and equipping volunteers. With the exception of the Philippine War we have usually relied upon the States to furnish volunteers, according to the quotas furnished by the War Department. Following upon the experience with State Volunteers in the Spanish War, we raised the two-year volunteers for the Philippine insurrection by direct enlistment into the United States Service, the officers being directly appointed by the President. These were, in every respect, the most satisfactory volunteers we have ever had. There were two reasons for this: First, they owed but a single allegiance, and that to the power carrying on the war. Second, they were well-officered, most of the field-officers and a few of the captains being officers of the Regular Army, and nearly all of the company officers having had more or less expe-

rience in the National Guard and State Volunteers. Since theory and practice combine in fixing this method as the best for raising volunteers, we may feel warranted in assuming that this or some similar method will be followed in the future.

In raising a large number of volunteers at one time, the recruiting field must cover the entire Union and in a systematic manner, the number required from the various districts being approximately proportional to population. The only territorial divisions we have which are approximately equal in population are the congressional districts. There are, according to the last apportionment, 386 congressmen, the districts containing a population in the neighborhood of 200,000 each. Suppose we raise a regiment in each congressional district, each territory and the District of Columbia. One regiment to each district, at 1100 men per regiment would give about 400,000; 1500 men per regiment about 500,000; 780 men per regiment about 300,000. This arrangement would give a limited flexibility in number without disturbing the regimental organization. Even one battalion or one company could be called for from each district. In any case the benefits of military instruction and experience would be extended to every part of the country.

Judging by our past experience, we may safely predict that there will be no difficulty in securing a half million volunteers at the beginning of a war. The paramount difficulty will be to secure properly qualified officers. If such officers are on hand when wanted, and have been educated to the special requirements of the organizations they are to raise, the work of enlisting volunteers and preparing them for service can be swiftly and smoothly accomplished.

Senior captains and junior majors of the active list of the Regular Army make the best colonels of volunteers. They are of ripe age and intimately conversant with the details of the instruction that must be quickly impressed upon the raw levies to mold them according to the latest ideas as developed in the Regular Army. Then in time of peace let the colonel of each regiment be selected from the lower half of the relative list of majors and upper half of relative list of captains of the Regular Army, and let him be commissioned as colonel of such and such a regiment. The designation of the regiment should indicate the State, congressional district and arm of the service; as Fifteenth New York Infantry.

Let the other officers of each regiment be determined on the

recommendation of a board consisting of the colonel and such other field-officers of the regiment as may be available (the colonel the only field-officer available to select the lieutenant-colonel), assisted by a surgeon as medical examiner, after such examination as may be prescribed by the President.

An officer is not a military genius because he belongs to the Regular Army, and the test of actual war always furnishes examples of organizers and theorists failing in the practical requirements of the field. If, however, it is impossible to tell with certainty the absolute qualifications and short-comings of professional soldiers by the tests of the garrison and service schools, and by the way they handle their men during years of continuous service in garrison and in peace maneuvers, how much more difficult is it to judge of the qualifications of amateur soldiers. In the beginning of a war we must place in high command the officers who are shown by all the tests available up to that time to be the best. Therefore the general officers of volunteers at first should come from officers of known training, experience and judgment; officers of the Regular Army not below the rank of major. After war begins, vacancies in grade of general officer or colonel of volunteers should be filled by those most distinguished in the field whether regular, volunteer or militia.

Officers of the Regular Army, who are serving under volunteer commissions and on various details in time of war, should have their places in the Regular Army filled while they are so absent by the temporary promotion of officers in the next lower grade. Each State should provide for filling the places of volunteer officers, who are also members of militia organizations. To temporarily fill the vacancies thus occasioned in the lowest grade of the Regular Army, there should be in each volunteer regiment four more second lieutenants than the authorized number in a corresponding regiment of the Regular Army, thus admitting of the detail of that number of second lieutenants of volunteers with the Regular Army, without taking from the regiments tactical number.

The above scheme of appointment and promotion by selection would give opportunity for rewarding distinguished officers in time of peace, without material prejudice to those less deserving, and would give opportunity for trying out the officers to a certain extent and eliminating those not coming up to the proper standard before the time of actual war arrives.

With the aim of keeping the regimental organizations alive

and interested and up to date, there must be a flow of promotion. Let all volunteer commissions be for five years only, and let no officer be recommissioned in the same grade. After the cadre of officers is once filled, let all promotions be from the next lower grade by some method of selection and examination by the board of field-officers above mentioned; the lieutenant-colonel to be selected from the majors by the colonel. Officers reaching the end of their five years' commission, for whom there are no vacancies in the next higher grade, should be allowed to take the examination for promotion, and if they qualify should be given a brevet commission of that grade, and have their names placed, if they so desire, on a reserve list of volunteer officers. While the regiment is at the front, the reserve list could furnish officers for recruiting and for a depot battalion.

Certain officers on the reserve list would desire positions on the enormous volunteer staff required in time of war, and should be given opportunities for showing their fitness for various staff positions, and should be commissioned and kept instructed in the duties of the staff-corps in which commissioned.

Provision should be made for keeping track of honorably discharged men of the Regular Army in the districts where they reside, and enrolling them for war service, if they so desire, in such regiment of regulars, volunteers or National Guard as they may choose.

There must be material on hand in the way of arms, ammunition, accoutrements, uniform clothing, equipage, etc. As these supplies cannot be obtained in the markets, they should, without question, be accumulated in quantities sufficient for the number of men we could expect to be called for at the beginning of war, and stored in depots and arsenals suitably located for convenient distribution.

The officers of each regiment should be assembled every year for a period of instruction of ten days, and should be in camp for that time in the district, or some convenient place near it. Regiments in districts on or near the seacoasts should be designated coast-artillery and be assigned to certain near-by forts, and the officers assembled there for their annual instruction. Cavalry and field-artillery regiments should, of course, be from those districts where suitable horses are plentiful. Brigades and divisions should be located and designated, together with the location of their headquarters and place of rendezvous. It would be well to have in mind the formation of army corps and armies in

fixing upon the proper proportion and location of the regiments of the different arms of the service. Officers should be required to furnish their own uniforms and their own horses, and should be paid enough to cover their actual expenses. In addition to traveling expenses, rations and forage, \$3 per day would be enough for officers not mounted, and \$5 per day for officers mounted. It is thought best for the Government to furnish rations for the officers with the idea of familiarizing them with it, they to live on the ration in camp and superintend the seeking of it, or, if they choose, seeking it themselves. So with the forage, they should draw and use that also. The Government should furnish each regiment all the medical, ordnance and quartermaster supplies needed in the camp of instruction. All the necessary paper work—requisitions, reports, returns, etc.—should be done by the proper officers. The camp of instruction should be a practical and theoretical school, the officers of each regiment constituting, in fact, a cadet company, being drilled under arms like cadets, the field-officers acting as company officers and the captains as non-commissioned officers. Evenings should be devoted to theoretical work. A course of military study and reading should be laid out for the year. Company officers should be assigned to companies and the recruiting district for each company be determined. The location of battalion and regimental headquarters should be designated. The brigadier-generals should sometimes be ordered to inspect their regiments during the instruction period, and should have all the regiments of each brigade together for the instruction period at least once in five years. Officers of the active list detailed for duty with the National Guard, and at some of the more important colleges and military schools should be chosen with a view of making them colonels and brigadier-generals of volunteers. Regular Army officers holding volunteer commissions in time of peace need not be absent on volunteer duty more than three or four weeks each year.

The entire cost of the volunteer system herein outlined would not be much over one million dollars annually—a small sum considering the vast benefits derived.

The first year after the law goes into effect the colonels should be sent to their districts to look over the ground, hold examinations of candidates for the various offices and do everything possible toward getting their officers. It will probably not be possible, except in isolated cases, to fill up the cadres the first

year. It may, in fact, be several years before all the officers are filled, but this scheme has the advantage that the Government pays only for what it gets. If officers are not forthcoming, the Government is only put to the expense of sending the colonels into the districts. It is believed, however, that in a few years, most, if not all, of the cadres will be filled and will be kept filled without difficulty. Authority should be given to the President to revoke the commission of any volunteer colonel when he reaches the grade of lieutenant-colonel in the Regular Army, or when he is sent on duty outside of the United States proper; and the commission of any volunteer lieutenant-colonel of a regiment on recommendation of the colonel; and of any other volunteer officer of a regiment on recommendation of the board of field-officers. This arrangement puts a great deal of power over his officers into the hands of the colonel, where it should be.

The law on the subject of volunteers should cover only the essential features, leaving the details to be prescribed by the War Department in a set of rules and regulations susceptible of such improvements as experience may dictate.

The idea is to have each regiment fully officered at all times with the identical officers who will raise and train the regiment and head it in war—officers who, under competent instructors for years, have learned their duties theoretically and practically, according to the system of the Regular Army; keeping pace with its progress in training, discipline, equipment and methods of supply.

At the first indication of war every volunteer officer, without waiting for orders, will look for the men likely to enlist, and will even have in mind the best men for non-commissioned officers, will refresh his mind as to the places and the methods for obtaining the supplies of various kinds for his men; in fact will be on the alert to recruit and equip his organization as soon as the order comes.

When war actually breaks out, volunteers will be called for; volunteer officers will join their proper stations, which will have been designated beforehand, and actual recruiting, organizing, equipping and drilling will begin instantly in every part of the country. The regiments will be filled up and formed in a few days. In one month's time the regiments should be fully equipped and ready to move. From that time on they will rapidly improve.

The clause of the Militia Law of 1903, providing for the

examination of candidates for officers of volunteers, has resulted in very few examinations so far. Doubtless, because there has been very little effort to get men to take the examination and because the status of the successful candidates is rather vague. By the system here proposed, every man undergoing military instruction, whether in schools, National Guard, Regular Army, Marine Corps, or elsewhere, will have his attention called to the conditions that must be fulfilled to get a real commission in an actual regiment.

No doubt some of the crack regiments of National Guard Infantry will be able to fully supply a brigade of volunteers with officers. And so there are some crack squadrons of National Guard cavalry able to furnish the officers of a regiment. And there are a few National Guard batteries of field-artillery that could do the same thing for the artillery. There are several National Guard regiments on the North Atlantic coast that have taken great interest in coast-artillery, and the interest seems to be spreading to nearly all the coast States.

The military schools and colleges having officers detailed as military instructors turn out each year a large number of young men who have had more or less military instruction, both theoretical and practical. With the exception of a very few—perhaps one per cent.—these men are lost sight of, and if any of them ever get into military service or continue their military interest, it is purely accidental, and not due to any systematic effort on the part of the Government, to directly avail itself of the benefits of the military education and interest that have been imparted. We are at great pains to plant the seed, and do not take the trouble to reap the harvest. Under the system herein advocated, military instructors and students will have something definite to work for, and the Government will be put in the way of receiving some return for its efforts in this field.

CONSCRIPTION.

This is a subject that must be considered in any scheme for realizing the full military power of a nation. No matter how enthusiastic and patriotic a people may be at the beginning of a war, there sooner or later comes a time in a protracted war when volunteering practically ceases. Experience in the Civil War both North and South demonstrated the necessity of conscription, which was begun by the South and attempted by the North in the second year of the war.

President Lincoln, on the 2d day of July, 1862, had issued a call for 300,000 volunteers to serve for three years. This was done at the instance of a request that he do so, signed by the governors of eighteen States. But it was soon realized that this call would not be filled promptly. On the 17th day of July, Congress passed a law enabling the President to resort to the draft of militia. On the 4th day of August the President ordered the draft of 300,000 militia to serve nine months.

"This order was the first step taken by the Government toward carrying out the maxim upon which the security of republican governments mainly depend, viz.: that every citizen owes his country military service. To its adoption, and the subsequent rigorous resort to conscription, the salvation of the Union is due, more than to any other cause.

"The draft under this order commenced on the 3d day of September, 1862, and was conducted by the State authorities. Of the three hundred thousand (300,000) men called for, about 87,000 were credited as having been drafted into the service under the call. This number was much reduced by desertion before the men could be got out of their respective States, and but a small portion actually joined the ranks of the army."

The above and the following quotations are from the report of the United States Provost Marshal General, rendered after the close of the war. This report is most comprehensive and shows in detail the various methods of raising men in the North, and shows conclusively that the successful method was the one in which the Federal Government handled the business directly, using the congressional district as the unit.

The unsuccessful attempt to raise militia by draft under the auspices of the State Governments was in pursuance of a law recently enacted for that very purpose. What was needed was some specific act of law not subject, even by implication, to the constitutional restrictions accompanying any measure for raising a force from the militia, a law that would be directly enforceable by the general Government, and not dependent for its enforcement upon a number of different governments, none of which was primarily charged with the conduct of the war.

The subject was taken up by the Congress which assembled in December, 1862. In the course of the discussion upon it, Senator McDougall said: "Now, in regard to this conscription question, I will say, for myself, that I regretted much, when this war was first organized, that the conscription rule did not obtain. I

went from the extreme east to the extreme west of the loyal States. I found some districts where some bold leaders brought out all the young men and sent them or led them to the field, in other districts—and they were the most numerous—the people made no movement toward the maintenance of the war; there were whole towns and cities, I may say, where no one volunteered to shoulder a musket, and no one offered to lead them into the service. The whole business has been unequal and wrong from the first. The rule of conscription should have been the rule to bring out men of all classes, and make it equal throughout the country; and therein the North has failed.”

Quoting again from the Provost Marshal General’s Report: “After a protracted, searching and animated discussion, extending through nearly the whole of the short session of the Thirty-seventh Congress, the enrolment act was passed and became a law on the 3d of March, 1863. It was the first law enacted by Congress by which the Government of the United States appealed directly to the nation to create large armies without the intervention of the authorities of the several States. The main objects of the law were, in general terms: First, to enroll and hold liable to military duty all citizens capable of bearing arms not exempted therefrom by its provisions; second, to call forth the national forces by draft when required; third, to arrest deserters and return them to their proper commands.”

“When the bureau was put in operation the strength of the army was deemed inadequate for offensive operations. Nearly 400,000 recruits were required to bring the regiments and companies then in service up to the legal and necessary standard. Disaster had been succeeded by inactivity, and the safety of the country depended on speedy and continued reenforcement of the army. The insufficiency of the system of recruitment previously pursued had been demonstrated, and the army was diminishing by the ordinary casualties of war, but more rapidly by the expiration of the terms for which the troops had engaged to serve. To meet the emergency a new system of recruitment was inaugurated. The General Government, through this bureau, assumed direct control of the business which had heretofore been transacted mainly by the State governments. The provost marshals of the several congressional districts, aided by a commissioner and surgeon in each, were made recruiting officers. Springing directly from the people and at the same time exercising the authority and representing the necessities and wishes of the Gov-

ernment, they reached the masses, and were able, without abating the requirements of the conscription, to promote volunteering and to examine, enlist, muster, clothe and forward recruits as fast as they could be obtained. The quotas of districts and sub-districts were made known, each locality was advised of the number it was required to furnish, and that, in the event of failure, the draft would follow.

"This system (though administered under difficulties and discouragements further alluded to in the accompanying report) met the wants of the service; recruits were rapidly obtained by voluntary enlistment or draft, and such strict regard was paid to their physical fitness, before accepting them, as to greatly reduce the enormous loss on account of discharges for physical disability which had prevailed during the first two years of the war."

"One million one hundred and twenty thousand six hundred and twenty-one (1,120,621) men were raised."

"Seventy-six thousand five hundred and twenty-six (76,526) deserters were arrested and returned to the army."

"The quotas of men furnished by the various parts of the country were equalized, and a proportionate share of military service secured from each, thus removing the very serious inequality of recruitment which had arisen during the first two years of the war, and which, when the bureau was organized, had become an almost insuperable obstacle to further progress in raising troops."

"The system of recruitment established by the bureau under the laws of Congress, if permanently adopted, with such improvements as experience may suggest, will be capable of maintaining the numerical strength and improving the character of the army in time of peace, or of promptly and economically rendering available the national forces to any required extent in time of war.

"Through the instrumentality of the bureau there was disseminated throughout the loyal States a knowledge of the routine business in the various bureaus of the War Department, which was essential to intelligent and effective cooperation in the recruitment, through popular effort, of the armies of the republic.

"The extension of the bureau over the country brought together the Government and the people by closer ties, nurtured that mutual confidence and reliance through which the Civil War was conducted to a successful termination, and developed

a consciousness of a national strength which will promote future peace and prosperity."

The first militia law in this country, passed soon after the Constitution went into effect, provided for a most drastic conscription, but the law depended upon State action and was not enforced; in fact was looked upon with derision for over a hundred years. The conscription laws of the Civil War, passed in time of war, met with fierce criticism and objection, and their enforcement in some places was accompanied by violence and bloodshed. The imposition of a new burden, no heavier than a one-cent stamp upon a telegram, creates opposition. How necessary, then, to make familiar to all of us the nature, extent and method of imposition of an obligation which may require a man to suddenly leave his business, sever home ties and risk life itself.

There can be no doubt that such a conscription law as the one with which we had so much experience in the Civil War, with liberal exemptions, and cutting out certain objectionable features, should be passed, and that it should be passed in time of peace. It should be couched in rather general terms, giving the President authority through the War Department with its General Staff, to work out the details of its enforcement. The enrolment could be made, with little or no expense, at the time of the decennial census, to be revised by the proper officers when occasion arises.

The mere placing of such a law upon the statute books would constitute a most valuable military asset.



RÉSUMÉ.

The military necessities arranged in order of their importance:

OUR MILITARY NECESSITIES AT THE PRESENT TIME. BEST PROVISIONS FOR MEETING THEM.

First.—To perfect the *Coast Defence*.

Supply adequate amount of ammunition. Install fire-control apparatus. Build and equip new fortifications according to plans of Coast Defense Board.

Second.—To establish a workable system for raising and setting on foot a half million *Volunteers* within a few weeks.

Provide for a complete organization, in skeleton form, with all officers selected, appointed and instructed in time of peace; one regiment for each Congressional District and Territory and the District of Columbia; Colonel of each regiment to be an officer of the Regular Army; ten days' instruction annually; no commission to run for more than five years. Accumulate arms, ammunition, equipments, uniform clothing, camp equipage, etc., in suitably located arsenals and depots.

Third.—To bring the *Regular Army* up to 100,000 men and to maintain it at the highest state of efficiency.

To obtain and keep men.

To fully instruct in field work.

To educate higher officers.

Increase pay.

Continue field maneuvers.

Establish Staff College open to all officers above middle of list of captains.

To obtain larger number of officers.

Have all four year details create vacancies. Increase capacity of the United States Military Academy.

Fourth.—To put the *National Guard* in the way of performing in the most efficient manner its three rôles of State Guard, emergency reserve to the Federal Army, and school for the supply of officers and non-commissioned officers of Volunteers.

Arm and equip at expense of the Federal Government. Prescribe organization, drill and target practice. Detail specially selected officers of the active list of the Regular Army as instructors to assist in carrying out Federal requirements. Require all members to have some target practice. In addition to target practice and armory drills, provide for marches, camps and minor maneuvers with Regulars.

Fifth.—To provide in time of peace for final resort to *Conscription*.

Place upon the statute books, as soon as may be, a carefully considered, just and impartial, conscription law; ready-to-work, but to become operative only upon special authorization of Congress.

While it would be interesting to work out the foregoing system to all its possibilities, there is not room within the limits of this essay to go further into detail. Fortunately we have the trained minds of the General Staff and the War College to elaborate any series of military ideas submitted to them, and to embody the ideas, if so desired, in the form of a bill for the consideration of Congress.

It may be remarked in general that with some system in force like the one above outlined, every part of the country—even those places in which no soldier, either regular or militia, has been seen for forty years—will become more or less acquainted with, and therefore interested in, military requirements.

The Regular Army is non-territorial and will remain so, uninfluenced by local affiliations.

The militia is strictly territorial and will remain so—State forces, except for the Federal duties expressly noted in the Constitution.

The volunteers are territorial for the purposes of recruitment, with all the advantages to be derived from local pride and *esprit de corps*; ease of administration in preparing during time of peace, at small expense, for raising war forces; for indefinite expansion in time of war, even to the extent, if necessary, of drawing out the full military strength of the nation.

The key-note of our military policy must be *Preparation for War*. All the details of organization, supply, instruction, discipline and administration must harmonize with the great end in view.

When war finally comes the high officials of the War Department will be able to devote themselves to their legitimate duty instead of being compelled to give most of their time to interviews with office-seekers and their friends. And their legitimate duty will be to start and run a carefully constructed machine instead of attempting to construct a complicated machine, the design of which may still be a subject of contention. In place of hurried confusion in regulars, militia and volunteers, there will be well-directed activity.

In modern military history, decades of peace are followed by a few years of open hostilities. The nation that wisely utilizes the period of peace in thorough preparation may submit, without fear, to the supreme test of war, invoking with confidence the protecting shield of the God of Battles.

READJUSTMENT OF RANK.

BY COLONEL C. J. CRANE, NINTH INFANTRY.



THE struggle for readjustment of relative rank, which, for many years, has been waged by those who lost, by the application of the regimental system of promotion, "the established rule," has again assumed definite shape.

In the early 90's, the bill to readjust was passed by the National House of Representatives, but failed to become the law.

Up to the present time, so far as is known, the War Department of no previous administration has given any support to such a measure. But, at last, we see that such has happened, and undoubtedly additional prestige attaches to the present desire for readjustment of our relative rank because of "the memorandum of the General Staff on this subject, dated March 7th, and transmitted April 1st to the Chairman of the House Military Committee, in a memorandum by the Secretary of War, etc."*

The presentation of the case by the Chief of Staff shows plainly his warm friendship for the proposed legislation, and the Secretary of War has given it his powerful support.

Naturally, this combination of circumstances is calculated to almost silence opposition from those who have profited by the regimental system of promotion, but, as one of those who "desire to retain advantages gained by them, through no merit of their own, etc."† I must again raise my voice and contend that readjustment of rank is not provided for in Section 1204, Revised Statutes, that we deliberately made our selection of regiment, frequently ignoring evident advantages for promotion offered by certain regiments, and that the present effort to readjust the rank of those who entered the service prior to 1890 has nothing in law to back it up, and nothing in equity, except, possibly, the misplaced sympathy which may be aroused by an incomplete presentation of facts.

My opposition is directed only against the readjustment of

**Army and Navy Journal*, May 9, 1908.

†Memorandum of the Chief of Staff.

rank of those officers who served in the old days, when regimental promotion was the "established rule."

I am not acquainted with the pros and cons in the discussion of the promotions which took place soon after the muster out of the Philippine Volunteers in 1901, but I can understand how the support of those who lost in that distribution of commissions is most welcome accession of strength to the older gentlemen, who now desire a second division of property, but I most strenuously object to their traveling together. The two causes are entirely different and should be kept separate and distinct.

The Army and Navy Journal of May 9, 1908, from which I get my entire knowledge of the papers forwarded by the Secretary of War, April 1st, to the House Military Committee, contains apparently only scattered extracts. Section 1204, Revised Statutes, is not mentioned in the *Journal*, neither is there any allusion to the officers who entered the service since the Act of October 1, 1890.

Previous efforts to readjust our rank have always contained discussions of Section 1204, and it is not safe to ignore that law, notwithstanding the Chief of Staff has admitted that "any discussion of the application of past laws is, from a legal viewpoint, academic."

Therefore, I will first give all the laws and regulations I have heard of, and I will afterward discuss the plea for sympathy advanced for those grown-up men who, having lost in the selections formerly made by them, now beg for a second distribution.

1. Section 1204, Revised Statutes, which went into effect December 1, 1873, reads as follows:

"Promotions in the line shall be made through the whole army, in its several lines of artillery, cavalry and infantry, respectively; promotions in the staff of the army shall be made in the several departments and corps, respectively."

The Act of October 1, 1890, made lineal promotion the rule from that date, but it has been contended that lineal promotion was directed for all in the statute quoted.

The struggle to effect a readjustment of rank began only a very few years, perhaps only a few months, after the enactment of the statute. As far back as the Forty-sixth Congress, the Senate Military Committee submitted adverse report on a measure designed to accomplish a readjustment. This fact should be borne constantly in mind when discussing the meaning of Section 1204, for the Senators composing the committee were discussing

questions of comparatively recent origin, and must have had clear conception of what was intended in Section 1204.

The intended meaning of the statute was also undoubtedly understood by the War Department of that time, and the fact that for so many years that department, through its different chiefs, has so steadfastly adhered to its belief that Section 1204 did not provide for lineal promotion to the grade of captain in the line, is additional evidence as to what was intended in the quoted statute.

The different incumbents in the War Department, and the Senate Committee alluded to, must, naturally, have studied the language and wording of previous laws and regulations in construing the meaning of the statute. It is understood that a revision of laws previously passed by Congress is for the purpose of eliminating obsolete laws, and selecting for reenactment the up-to-date and desirable enactments and parts of same, and that in such revision the language of the laws revised is followed, as far as practicable, and, therefore, the same meaning is held in view.

The report of the Senate Military Committee (Senator Cockrell) to the Forty-sixth Congress, shows that in 1776 the Continental Congress had recommended to General Washington that promotions, to include the grade of captain, should be regimental; that the principle was adhered to when our army consisted of only one legion with four sub-legions, and that in May, 1901, the Secretary of War, in an order, established as an army regulation that, "promotions to the rank of captain shall be regimental."

Having been followed for thirty-five years, the manner of promotion to captain was well settled and well understood, when the Act of June 26, 1812, prescribed that, "the promotions shall be made through the lines of artillerists, light artillery, dragoons, riflemen and infantry, respectively, according to established rules." This rule, thus sanctioned by the highest law in the land, was fully enunciated in the Army Regulations of 1813, as follows:

"Promotions to the rank of captain will be made regimentally; to that of field appointments, by line, the light artillery, dragoons, artillery, infantry and riflemen being kept always distinct."

The Act of March 30, 1814, Section 12, reads thus:

"That from and after the passing of this Act, promotions

may be made through the whole army in its several lines of light artillery, light dragoons, artillery, infantry and riflemen, respectively; and that the relative rank of officers of the same grade, belonging to regiments or corps already authorized, or which may be engaged to serve for five years or during the war, be equalized and settled by the War Department, agreeably to established rule; and that so much of the Act entitled 'An Act for the more perfect organization of the Army of the United States,' passed the 26th of June, 1812, as comes within the purview and meaning of this Act, be and the same is hereby repealed."

This is the second Act of Congress that gave the sanction of law to the established rule, which was regimental promotion to include the grade of captain, and besides that prescribed only that officers, in their rise from grade to grade, should remain, each in his own line. The lines of the Army in 1814 were different from those of 1812, and the last Act was intended to provide for new lines during the war, then going on against Great Britain. Otherwise the two Acts are exactly the same in meaning.

The following Act of March 3, 1851, is for the staff: "Provided, that all promotions in the Staff Department, or corps, shall be made as in other corps of the army."

The Army Regulations of 1863 repeated the provision for regimental promotion to include the grade of captain, and added regulations regarding promotions in the Staff Departments.

All the Acts of Congress and Army Regulations bearing on the subject, and prior to the revision in 1873, have been presented.

In the revision the language and meaning of the Acts revised must naturally obtain, and in the case of doubtful meaning in the Revised Statute, the Acts revised must be studied to get the true meaning of any part of the Statute as revised.

The Acts of Congress revised provided for promotion according to the established rule, which, for about 100 years, had clearly been regimental, to include the grade of captain. Section 1204, which is the revision of those Acts, cannot contain new matter, being only a revision, and the language used in the framing of it shows that fact to have been clearly remembered by the statute revisers.

The Army Regulations of 1889, the first promulgated after the revision of the Statutes, naturally repeated the provisions of previous regulations regarding the manner of promotion, since

no Revised Statute can contain matter entirely different from that given in the Acts revised.

Section 1204 merely preserved the provision that, in the line and in the staff, officers rising from grade to grade should remain in the particular branch of the service they started in, and left "the established rule" to still decide the manner of their promotion.

The volume of Revised Statutes shows that in Section 1204, only the Acts of March 30, 1814, and March 3, 1851, were considered, and that only such statutes were revised as were in force on the 1st day of December, 1873, the Revised Statutes being passed at the First Session of the Forty-third Congress, 1873-1874.

It is evident that for the line no system of lineal promotion, as now in force, can reasonably be inferred from the Acts of Congress named, also that the Senate Military Committee, in its report to the Forty-sixth Congress, only five or six years after the revision of the statutes, so understood the question.

The Army and Navy Journal, from which I have all my information of the papers advocating readjustment of rank, contained no information as to what view of the laws and regulations have been presented by the Chief of Staff, through the Secretary of War to the military committees.

To that extent, therefore, I am struggling in the dark, and must, in a measure, leave the subject feeling that, most likely, I have not covered the entire subject to my own satisfaction, but if the silence of the *Journal* regarding the legality of regimental promotion prior to 1890 means anything, it must be that such legality was not considered in the memorandum of the Chief of Staff as of vital importance.

So far from plainly reversing the long-established rule for promotion in the line, in language unmistakable in meaning, Section 1204, Revised Statutes, leaves the question untouched, and "the established rule" remained the only guide till October, 1890, when the Act was passed making seniority by length of service in the arm * * * "the fundamental principle of promotion throughout the army."

2. As one of quite a number of officers who have profited by the regimental system of promotion to include the grade of captain, which was the established rule and sanctioned by law until the Act of October 1, 1890, made lineal promotion the rule for every grade, I must insist that there is another side to the points

made by the chief of staff in his memorandum, which points have greatly impressed the Secretary of War, and must have done much toward winning his support for the proposed scheme for readjusting our rank.

Again I will quote from the memorandum as given in the extracts published in the before-mentioned number of the *Army and Navy Journal*:

"So far as officers directly interested are concerned, both adherents and opponents of the proposition to readjust rank are admittedly inspired by self-interests; but there is a difference. The former are inspired by a desire to regain certain advantages which were lost, through no lack of merit and no fault of their own, to more fortunate comrades; the latter, by a desire to retain advantages gained by them through no merit of their own, over less fortunate comrades. In considering the equities of such a contest, there seems room for little doubt as to where the sympathies for the average disinterested person would be found to lie."

From the foregoing description of how it came to pass that some of us have positions which some of our friends in the service wish to take from us, it would seem that nothing but accident had any hand in it.

It so happens that my recollection supplies me with much information to the contrary, which knowledge of the subject had its beginning during my cadet service at the National Military Academy, from which I graduated in June, 1877, with graduating standing forty-three out of a class of seventy-six. From my own recollection of our many conversations, much reading and questioning as to stations of regiments, etc., I know that cadets in those days were very much alive to the importance of making the most desirable selection of regiment, warranted by their graduating standing.

The number of vacancies existing in any regiment received great consideration, provided the regiment happened to be *white*. The station of the regiment had very great influence on those about to risk everything on the result. Those below a certain graduating standing had to content themselves with fewer regiments to select from, and fewer branches of the service.

To the best of my recollection, during my entire service at the academy, I heard only one cadet say that he was going to select a colored regiment; his father was then colonel of one. Notwithstanding the good reason he gave, I can remember of no ap-

proval of his choice. There were sons of quite a number of army officers there the same as there are now, and the experiences of these young men assisted their comrades to get a more perfect knowledge of regiments, their stations, duties, etc.

I remember that the name of Mackenzie greatly influenced my classmates to wish to get assigned to the Fourth Cavalry, of which he was then the exceedingly active and efficient colonel.

When the class of 1877 graduated, there were less vacancies in white regiments than there were graduates; even the vacancies then existing in the four colored regiments were not sufficient.

We all knew about these vacancies in the colored troops; we knew of the seven vacancies in the Twenty-fourth and Twenty-fifth Infantry, and of the greater number existing in the Ninth and Tenth Cavalry.

When I went to record my wishes as to what regiments I would like to get, the numbers of regiments to be written in order of preference, I first examined the record of what regiments had been requested by my seniors in graduating standing. I distinctly remember seeing that at least two of them, in asking for infantry regiments, had recorded their application for several vacancies in white regiments, and had then added requests for commissions as "additional second lieutenants" in one or more other white regiments. One or more applicants for the cavalry assignments did the same.

These graduates knew perfectly well that all of the colored regiments had vacancies available for them. We all believed, and had every reason to believe, that promotion in the colored regiments would be more rapid. I do not believe that any man of my class who selected the infantry had any doubt as to getting more rapid promotion in the colored regiments.

I have similar belief relative to those who selected the cavalry arm.

The sixteen or seventeen vacancies then existing in the four colored regiments had been accumulating for several years. Old records of those years will show that a number of graduates, after being assigned to the colored troops, transferred to white troops before joining, and by the transfer lost greatly in promotion. But the prejudice against these troops lasted with some officers for years after graduation. I remember hearing a young second lieutenant of artillery, at Fort Monroe, say in 1882 or 1883, that he preferred being second lieutenant of white artillery

to being a captain of colored troops. I had said nothing to bring out such a remark from him; he meant it.

All of my class who accepted commissions in the colored infantry, as I did, gained in promotion by so doing. Not one of my classmates who graduated above me, and selected a white regiment of infantry instead of the colored regiment I was assigned to, beat me in promotion. Can it possibly be claimed that no "fault" attaches to those gentlemen for deliberately passing by almost certainty of rapid promotion? And have I and my classmates in the colored infantry no claim to "merit" for accepting what was given us and sticking to it?

Ours was and is the "merit," and theirs the "fault."

And suppose the young lieutenant should wish to better his chances for promotion by transfer or exchange? The old records contain many instances where one party to the exchange, to all appearances, had such object in view.

In the Seventh Cavalry, after the Custer fight, it was evident that promotion would be slow. All honor to the gentlemen who promptly requested assignment to the stricken regiment, but, after a while, the conditions as regarding promotion justified exchanges and transfers from that regiment. In the early 80's, an officer exchanged from the Seventh Cavalry to the infantry, and by so doing was the first captain of infantry in my class.

I claim "merit" for that officer, and "fault" for those who remained in the Seventh Cavalry and lost promotion by so doing, and I believe the claim of "merit" and "fault" should attach to every similar case.

It is possible that some poor fellow could not leave his regiment because of the views entertained by his colonel. Possibly; but such colonel was not present all the time, and even officers of colored troops could, after a few years' service, find opportunity to get into the white troops. I know it from my own experience, also in the early 80's.

What I have said regarding selection of regiment, motives or reasons in so doing, opportunity for transfer and exchange, etc., all came under my personal observation, and I have no data to refresh my memory as to the many others which undoubtedly happened.

I am not alone in my contention, and I represent quite a class of officers who have had sufficient "merit" to know when they had a good thing, and to hold on to it, and we see only "fault" in those who could have had what we got, and did not take it.

To recapitulate: we entered the service knowing the "established rule" of promotion; we did our best to graduate high and thus increase our range of selection; we did our very best, in selecting regiment and branch of service, to get all we could out of existing conditions, and we examined the future the best we could to hold on to the advantages possessed at graduation; no graduate could get an assignment which was requested by any other graduate senior to him in graduating standing; many of us, now claimed to hold what we have through no "merit" of our own, had, in the selection, very little range of choice, but have managed to choose well; many of us who had high graduating standing, and therefore a wide range of choice, selected poorly as regards what they now desire, *i. e.*, promotion, and under the plea that the result shows no "fault" of their own, claim the right to a new deal, which would give them what the others got in the first shuffle, this, notwithstanding the fact that, for years, the opportunity was open for them to transfer or exchange to some other regiment which offered better prospects for promotion.

No argument is needed to prove that graduates of prior dates had all the better opportunity for promotion offered by knowledge of conditions acquired by more experience.

Another description may, possibly, better show the equity of our contention:

In order to perform a certain work which is to be to the benefit of all participating therein, applicants are accepted year after year, and those accepted in any year, start with an advantage over those beginning later, for the contest is practically a race in which, besides the inequality just described, the competitors accepted at any given date are graded according to previously acquired qualifications, and they have choice of means available, each according to his grade of qualifications.

In accepting the means of advancement thus given, each man does his best to select advantageously, taking into consideration various points which seem of great weight at the time, and knowing that in the race his speed will depend entirely upon his selection of means to be used.

After starting thus, with very unequal prospects originally, opportunity is still given for change to other means which may seem preferable, and the race goes on. After a while it is evident that the original order of priority has gone to pieces. Some who started late and with small prospects have forged ahead, and

others who began well, with excellent chances for success, have lagged behind.

The race has been fair, but now the losers cry for a halt and claim the right always to remain ahead, each in his place at starting, and demand that the winners relinquish all advantage gained.

The race described is our battle of life in the army, in which everything depended upon the contestants making a wise beginning, or improving opportunities for betterment constantly offered.

What would a readjustment mean, except a new version of taking from Peter and giving to Paul, with the difference that Paul originally was allowed to select the property he would prefer, and Peter had to be content with second choice?

Peter's property developed better, and Paul claims that he still has right to first choice.

There are many thousands of restless, unsuccessful men who clamor for a division of the riches of the wealthy, which class began, in many instances, with the same chances possessed by the clamorers for another deal.

Those who lost by the application of the regimental system of promotion have no claim in equity for a readjustment of rank, and no mistaken sympathy for them should avail to bring undeserved misfortune upon their more fortunate comrades.

3. "But personal considerations, however important, are secondary to the interests of the service at large. Under the present unfortunate conditions it is not *unusual* to find in command of posts or organizations officers who have reached the rank entitling them to these positions through a mere application of law, and with no claims to exceptional records or unusual ability, while under them are officers of longer service, greater age and *sometimes* of greater ability, who were formerly the superiors of the officers under whom they now serve. Such conditions are far from promoting harmony and discipline, and are consequently injurious to the efficiency of the service."

The words *unusual* and *sometimes* are emphasized by me. Undoubtedly the Chief of Staff must have *sometimes* found conditions as described. Has he not also found, about as frequently, posts where the deserving junior was also junior in age and length of service, and the comparatively inefficient commanding officer was older in every way?

The conditions he describes mean nothing to the detriment of either class, or requiring legislation.

4. Referring to the proposed measures, the Chief of Staff says: "Nor are officers affected by them who, since that date (Oct. 1, 1890), have reached the grade of colonel, etc."

I cannot see why this measure does not concern the class he names. If our rank be readjusted, a number of us will mark time as colonels, only taking a lower seat now and then as one of our readjusted comrades arrives, and surrendering to such new arrivals every advantage which attaches to seniority of rank in any given grade, and there are many such advantages.

Of course, we have small chance of ever being anything bigger than colonel, but there are many occasions when the senior colonel has a big advantage over his junior of the same grade, and I must continue to register my protest against readjustment, which contains really nothing in law or equity to warrant any legislation affecting our relative rank.

Fort Sam Houston, Texas,

May 24, 1908.



HOW BEST TO INSTRUCT OFFICERS OF OUR ARMY IN TACTICS.*

BY CAPTAIN CHARLES D. RHODES, SIXTH CAVALRY.

GOLD MEDALIST, M. S. I.



FIFTEEN or twenty years ago, the serious study of tactics, as we now understand it, was confined to comparatively few officers. The period between the *post bellum* reorganization of the Regular Army and the year 1891, which saw the last of our Indian campaigns, was fraught with discouragement to military study of any kind, except that developed by constant field-service. Life in isolated garrisons furnished little incentive to original study or research; and official requirements as to tactical knowledge were exceedingly meager. If a company officer knew how to care for his organization in the field, had some knowledge of woodcraft and plainscraft, and made no very serious lapses of discipline, any little shortcomings in book knowledge were apt to be overlooked. Even graduates of West Point, who, from their superior opportunities, should have set the pace, were wont to drop all serious study after leaving their *alma mater*, and settle down into a rut of mental indolence. Perhaps it was the result of reaction, which, even now, seems to paralyze the natural ability of many splendid officers.

It is quite possible that of late we have been going to the opposite extreme, and have overdone the theoretical garrison instruction. Certainly, in those earlier frontier days, there was a stronger bond of union between officers and men; and the constant field-service with its share of responsibility for subordinate officers, created habits of command and of initiative, which can never be learned from books.

In the period of which I speak there were few good military works of any originality printed in the English language. Those officers who took their profession seriously, and who looked about for suitable text-books, were forced to be content with an

*Tactical study, Staff Class, Army Staff College, 1908. The writer alone is responsible for the opinions expressed.

ever-increasing flood of French and German literature, largely based on the Austro-German, Franco-German and Russo-Turkish Wars. Some of the most valuable of these foreign publications were not yet translated into English, and of those translated, many of the theories advanced were so at variance with the experiences of our own Civil War, as to create a tendency to discredit foreign tactics and to sneer at all foreign military literature, good or bad.

Much of this prejudice was doubtless engendered by the writings of those superficial continental writers, whose delight was to belittle the tactical lessons of our own great war, and to maintain that the opposing armies were armed mobs, devoid of discipline and striving for the mastery through mere brute strength.

Of this great war the army knew comparatively little, except from the limited horizon of eye-witnesses, for the reason that "Official Records of the Rebellion" had not yet been published; and the accusations and recriminations which ever follow all great wars had not yet been straightened out by the impartial evidence of official correspondence. But we have lived to see the day when such a coldly critical people as the English have enthused over the campaigns of Stonewall Jackson; and when Sheridan's and Wilson's methods of handling great masses of cavalry have been practically adopted by the armies of all great military powers.

An index of military thought and study of twenty years ago may be gleaned from the pages of the *JOURNAL OF THE MILITARY SERVICE INSTITUTION* and of the *United States Cavalry Association*. The tactical essays were for the most part translations from the French and German; articles relating to the Civil War were principally personal reminiscences. Original theses on tactical subjects were entirely compilations from foreign text-books, and the early text-books of the Infantry and Cavalry School were almost entirely of this character. The army had little or no tactical literature that it could call its own, in spite of having recently passed through the greatest war of modern times.

As a result, there grew up in the army a small group of pessimists, who rather decried professional study of any kind. This tendency was, no doubt, strengthened by public opinion, which argued that if the stupendous conflict between the States could be fought by leaders who, at the outset, had had little or no tactical training, the serious study of books was an unsoldierly

diversion reserved for unpractical men. The many blunders of the great war had not then been brought into the lime-light of publicity; it was seldom pointed out that the struggle should have been finished in half the time; and it took the people time to realize that the close of the war saw all of our great armies and most army corps commanded by professional soldiers who had been tactical and strategical students, to the almost complete subordination of the "political general" of the early days of the war.

Then came the organization and establishment of the old Infantry and Cavalry School, known in its early years as the Kindergarten. Its early curriculum was elementary in the extreme, but probably not too elementary for the army's tactical development. The history of all armies has shown that the latter is a slow process, evolved from small beginnings, and this is especially true in the case of such a non-military nation as our own. But the tactical awakening had begun in a small way; and in spite of the many shortcomings of the old Post Lyceum, it was a step in the right direction.

It remained for the Spanish-American War, and, perhaps, the opportunities for comparison afforded by the China Relief Expedition, to bring the army to a realization that our generals had had almost no opportunities to face military problems suited to their rank; that our field-officers must prepare themselves to be the generals of the future army; and that our subordinate officers would, in all probability, take part in another foreign war, in which this country's proverbial good luck might need the material support of military skill as well as mere financial backing.

Therefore, military education in the army grew apace, and it has been said that we are in danger of becoming over-educated.

It is true that we are a people of extremes. Too infrequently we are most immoderate in our enthusiasms. We go at our national tasks with an energy which amazes the world, and when the limit of endurance is reached, we sink exhausted like the winner in a six-day walking match—proud that we have accomplished what we set out to do, but with little craving to do it again.

But, without doubt, there were excellent reasons for the rather strenuous scheme of instruction, in force throughout the service during the past five years; and although not without its defects, it is believed that in combination with practical field

problems, it has had a most salutary effect upon the Army, and that its future influence upon our company and field-officers will be far-reaching and important.

But, as yet, our system of garrison instruction in the important subject of tactics is elementary and superficial. Officers of the army, through no great fault of their own, do not know half as much about the tactical handling of troops as they should know. A tour at the service schools only serves to impress even the most studious and experienced officer with how little he knew beforehand, and, above all, how much in the difficult domain of tactics still remains to be learned. There is no royal road to tactical efficiency; no short cuts, as it were. An aptitude for the tactical handling of troops is, no doubt, a heaven-born gift; but its successful development must be the result of study and experience. Said General von Peucker, the father of the German system of military education:

The more an army lacks actual experience in war, the greater is the importance of utilizing the history of war for instruction, and as a basis of instruction. Even the history of war may by no means be able to replace acquired experience; it can nevertheless serve as a preparation for it.

And at the present time it is a most encouraging sign that from the army posts comes a constant call for higher tactical instruction. Not higher, in the sense that subalterns desire to learn the duties of general officers, but an ambition to perfect themselves in the handling of the company, battalion and regiment, under all conditions, and to fit themselves for the higher staff duties, which, under our detail system, must fall upon the shoulders of officers of the line of the army.

The secretary of the service schools has at present on his mailing list for school problems and publications, 350 officers of the service; the competition to become a student at the School of the Line has become very keen; and student-officers so detailed reflect from their regiments a progressive and healthy ambition to pass beyond the elementary and oftentimes perfunctory requirements of the garrison schools, and take up work formerly taught at the service schools.

The time, therefore, seems ripe for gradually developing a greater scheme of tactical instruction, which, for every reason, should be as practical as possible. Field-officers should be fitting themselves for higher tactical duties; and such has been the character of our military policy that many subordinate officers, blessed

with strength and youth and soldierly qualities, will in the event of war, be called to command regiments of volunteers, or become the staff-officers of higher tactical units. More than this, our National Guard is destined to play an important part in our first mobilized army. Its war efficiency will, it is submitted, be in direct proportion to the previous instruction imparted by experienced officers. Camps of instruction are fast becoming a recognized feature of such instruction, and there should be, to-day, hundreds of regular officers capable of instructing the higher National Guard officers in all the duties of war. Not as mere instructors in guard duty and ceremonies; the day has gone by for all that. But officers who can give practical instruction in tactical problems and can assign logical reasons for things.

In fact there is every reason in the world why our officers, more than those of any other army, should be expert tacticians—not only of units corresponding to their actual rank, but of that rank which they might hold in the expanded army of war conditions. While we may not agree that we have an appropriate system of expansion, or any system whatever in the best meaning of the term, it must be considered as a concrete fact that Congress looks upon the Regular Army as the nucleus of such expansion, and in case of war its officers must be prepared for the hardest task which ever faced the officers of any nation, viz.: to make tactically efficient in a limited period a mass of patriotic but undisciplined and comparatively uninstructed volunteers, capable of winning battles against trained troops. In other words, our lack of a large standing army must, in the wisdom of the Congress, be compensated for by having always at hand a large number of trained regular officers, capable of not only knowing tactics themselves, but of imparting it to green troops.

PRESENT TACTICAL INSTRUCTION.

Officers recruited from civil life and from the army receive, at the present time, little or no tactical instruction previous to being commissioned, except that which the soldier picks up at maneuvers or field problems. The examinations for a commission are of a general character. Perhaps the time is not yet ripe, but the day will surely come when candidates for commissions will be required to know as much about elementary tactics as about logarithms, international law and surveying.

The course in the Art of War at the United States Military

Academy now comprises "Organization and Tactics" (Wagner), "Field-Service Regulations," "Pamphlet on Strategy," "Pamphlet on Campaigns and Battles," "Pamphlet on the Campaign and Battle of Gettysburg." The Department of Tactics gave the cadets three map problems during the past year, and during the summer the corps participated in six maneuver problems.

This brief and rather elementary course comprises all the tactical instruction given in what is justly considered the greatest cadet school in the world.

To be sure, the West Point curriculum is already crowded, and the theory has ever been held to be sound that the Academy should give its graduates a general scientific education, a high standard of discipline and personal honor, and only an elementary military education; but it has ever seemed to the writer that we shall not graduate the highest class of young officers until such subjects as "Sound and Light," "General Astronomy," and the like, are replaced by studies which form the groundwork of tactical efficiency. When this is done the War Department will be much better prepared to raise the tactical standards of the garrison and service schools.

What is the extent and character of the tactical instruction now imparted to the line of the army, outside of the service schools and the War College?

In the first place, field-officers and captains of more than ten years' service are excused from taking the Garrison School course, except post-graduate work. Instructors are also excused from the latter, and, therefore, receive no theoretical instruction, except that gained from their own study and reading.

In the Garrison School, the first term includes no tactical instruction—being devoted to study of the various regulations. The second term includes the broad term "Tactics," and by subsequent circular, Wagner's "Security and Information," and "Organization and Tactics" are the text-books prescribed for this course. The third term prescribes no tactical studies whatever.

To sum up, then, under present regulations and orders, the three years' course in the Garrison Schools contain no theoretical instruction, except the two Wagner books, and these count but forty-five units out of an aggregate of 270. The post-graduate course is obligatory upon such majors, captains and lieutenants as are not on duty with the Garrison Schools; and it consists (1)

of tactical map-problems—marches, deployments, attacks and defense—the units being not greater than a division; and (2) the special study of subjects selected by the commanding officer.

A cursory glance at this schedule will thus show a very small part of the time allotted to the tactical course proper; and that the post-graduate course is so general in its specifications as to afford every opportunity for lack of uniformity, and even for an absolute neglect of what should be the most important feature of officers' instruction. We all know that what is everybody's business is oftentimes nobody's, and there are always some officers only too ready to evade the spirit of an order, if it involves work.

The small amount of tactical instruction during the first three terms was to have been expected, as it was the evident purpose of the War Department to give the large number of comparatively uninstructed officers entering the army during and after the Spanish War a well-grounded course in elementary military knowledge. And it would be absurd to attempt to raise the standard of tactical instruction until officers had secured a working knowledge of our recently published "Field-Service Regulations," and of the rudiments of the services of Intelligence and Protection.

But as the third and last term of the Garrison School course was completed March 31, 1907, it seems high time that a more advanced course in tactics should be mapped out for the large number of officers who are now included in the post-graduate course; and certain tactical work to replace the two Wagner books in the course of the Garrison Schools. The Security and Information is sufficiently covered by our "Field-Service Regulations," and the "Organization and Tactics" is not only partly obsolete, but is so much a book of reference that it was almost a cruelty to require officers to recite in it. Without the "applicatory method" now used with such excellent results in our service schools, the principles of such a text-book are speedily forgotten. The study of such works without opportunity to apply the principles to concrete cases is not only a waste of time, but engenders an absolute distaste for tactical study, which produces no useful result. With a working knowledge of the "Field-Service Regulations," the principles of higher tactical studies can be much better inculcated by historical reading, map-problems and the war game.

PROPOSED TACTICAL INSTRUCTION.

And now, to come down specifically to the changes required in order to bring about a satisfactory system of tactical instruction at army posts:

1. Each army post should possess at least fifteen standard military works, for reference and private study, to be augmented yearly by accessions recommended by the General Staff. It is believed that with the development of the solution of tactical problems on the map at posts, these books will be taken up and read voluntarily and eagerly. It is a matter of experience that where competition crops out in our service, there are no army officers in the world so ambitious to excel as our own. And it stands to reason that the voluntary reading of military classics will do far more in creating a taste for study and research than a merely compulsory system, enforced by periodic examinations. To systematize this work, the post commander might advantageously require certain officers to prepare reviews of the works read, to be read before the officers of the post if especially good.

The study of military history is, without doubt, one of the most valuable as well as entertaining methods of imparting a knowledge of tactical principles that exists. As an index of the importance attached to it by the German War College, it may be remarked that the first year, military history and tactics are each given four hours a week out of seventeen hours; the second year, the same number of hours out of a total of fourteen hours, and the third year, tactics proper is given three hours and military history four hours out of a total of twelve hours.*

For this reason it is believed that "Strategic-Tactical Studies From American Battlefields" (by Captain Steele), should be made a part of the Garrison course for all company officers. In addition, the following works should be furnished by the War Departments for voluntary study and research:

1. "Letters on Applied Tactics" (Griepenkerl).
2. "The Conduct of War" (Von der Goltz).
3. "Troop Leading" (Verdy du Vernois).
4. "The Duties of the General Staff" (Von Schellendorf).
5. "Cavalry in Future Wars" (Bernhardi).
6. "Quick Firing Artillery" (Roquerol).
7. "Evolution of Infantry Tactics" (Maude).
8. "Napoleon's Maxims."
9. "War Game" (Manuel).
10. "Clausewitz on War."

**Bulletin de la Presse et de la Bibliographie*, June 30, 1907.

11. "Ropes' Civil War."
12. "Memoirs of a Confederate" (Alexander).
13. "Life of Stonewall Jackson" (Henderson).
14. "German General Staff History of the Boer War."
15. "German General Staff History of the War in Manchuria."
(Now in progress of publication.)

2. It is believed that there should be a change in the theoretical course in tactics of the Garrison Schools, with a view to less text-book instruction and more use of the applicatory system.

There is doubtless existent in the minds of most officers of the army more or less of a revulsion of feeling against the rather strenuous theoretical educational courses of the past five years. The latter, with all its faults, has served a useful purpose, but except for officers just entering the service, had best be superseded now by more practical work.

This is the more apparent from a consideration of the psychological reasons. Young men who have not yet reached their majority are very impressionable. Their minds are more or less plastic to receive new ideas; they retain what they read and observe with more facility; and they are capable of longer sustained effort without mental exhaustion. Between the ages of twenty and thirty years the change in the mind's susceptibility and adaptability is not so marked as between thirty and forty years, while between the latter ages there is a very decided change. On the other hand, as officers grow older they are the beneficiaries of their experience. The application of what they have learned, whether from books or from practice, has crystalized into a readiness of resource and of confidence in themselves, which should give a cumulative value to their military services.

But as to theoretical work, mere text-book instruction of officers, unless varied by opportunities to apply it, becomes very tiresome and is retained with great difficulty. The *applicatory system* has been used in the best military schools abroad for the past forty years, and has been found most successful in our service schools; it should go hand in hand with text-book instruction—eliminating the latter wherever it is possible to replace it with practical work.

But this does not mean that theoretical work must go by the board. The study of great campaigns and the writings of those who are masters of strategy and tactics will, as in the other sciences, ever be pre-requisites to the skilled handling of troops in war. There are great tactical errors committed in every great campaign—errors that have been committed in all wars from

the time men fought with knives and stones. Reading and study teaches what best to avoid rather than what best to follow; for the greatest masters of tactics and strategy, each evolve ways of their own in handling troops, and he who would follow cut and dried rules will surely come to grief.

In the German Regulations of 1868, General von Peucker truly said:

The manner of imparting instruction ought, on the one hand to extend to awakening the interest of the auditors, and on the other hand, to stimulate their intellectual capacity, by accustoming them to practically apply the principles which they have been taught. In war, actions speak louder than words, practice surpasses theory. It is not enough to memorize certain truths, certain abstract rules; one must apply one's intelligence to discover by mature deliberation the fundamental principles which underlie them all. It is not enough to simply understand; one must know thoroughly, and be ready to form on the instant a reasonable decision, based on knowledge acquired.

Von Peucker unhesitatingly condemned the dogmatic, one-sided recitations, and recommended the method of application (*applikatorische lehrmethode*). This method consists, in the German War Academy, in "combining the employment of precise and substantial recitations, with practical application of the object of instruction in such a way that the student can discover an analogy and draw logical deductions, and accustom himself with the professor's aid to applying what he has learned to particular cases, to circumstances in real life, thus putting his knowledge to use with facility and assurance, with a view to the performance of duties which will be entrusted to him. Education of this kind gives character that solid quality so valuable in war."

Therefore, hand in hand with selected reading, and conferences (rather than mere recitations) in tactics, there should be a large number of tactical map-problems solved each year at every army post, and this to be followed by a systematic course in the war game.

The tactical map-problem, solved individually by each student-officer in writing, has some very beneficial results. It teaches map-reading, an accomplishment which is, in reality, a necessity to officers of all grades; it gives the student leisure to reason out the problem, the time being limited as proficiency increases; and it permits of better comparing the abilities of a number of officers than work in either field or map maneuvers. To be sure, the map-problem suffers from the disadvantage of being confined to a single situation, or, at most, several situations, and of con-

stantly bordering on false situations, due to the absence of the bullet, the inability to reckon the moral element in war, and the unreality of topographical conditions as interpreted from a map. But two of these disadvantages are present in map or field maneuvers, and for systematic instruction the map problem is a most valuable instrument and should precede all instruction in map maneuvers or the war game.

The war game or map maneuver develops tactical resourcefulness in its quickly changing situations, and creates habits of thought most useful in actual campaign. While its rapid movement is more fascinating to the player, it is too rapid for the beginner uninstructed in the map problem, and the umpire or director has less time and opportunity to go into the details of faulty estimates of the situation or defective orders.

Text-book instruction and military history equip for the map problem; the latter prepares for the war game or map maneuver, and the latter develops readiness of action in the field maneuver. Each one has a place unto itself in the scheme of tactical instruction, and each strengthens and supplements the other. All have defects which are alone eliminated by the realities of war; but when used progressively, the net result to the student-officer is extremely beneficial.

As applied to the garrison instruction of officers, there should be a progressive course for all, up to and including majors. The differentiation of the course should be based on the size of tactical units handled, for there is a tendency for officers to wish to handle greater units than their previous instruction warrants. Therefore, map-problems given officers taking the first-term course should include the handling, simply, of patrols, squads and platoons; the second term, that of companies, and the third term, of battalions. Captains and lieutenants taking the post-graduate course should be instructed in the handling of units not greater than a regiment and battalion respectively, while majors should, for the present, handle regiments and brigades. The earlier problems of the post-graduate course should, of course, involve the smaller units and lead up to the larger ones, named as the superior limit. In the war game or map maneuver, *troop leading* should be thoroughly taught, because our officers are most deficient in a knowledge of it.

Should such a system be inaugurated at army posts, the standard of admission to the service schools may be correspondingly increased, permitting an improved curriculum to be put into

operation. There is no good reason why the best parts of the present tactical course at the service schools should not be given to all officers, without compelling them to come to Fort Leavenworth and enter the School of the Line.

The following tentative regulations for the theoretical tactical instruction of officers on duty with troops are therefore suggested:

1. The compulsory recitations in Wagner's "Security and Information" and in "Organization and Tactics," to be replaced by the "Field-Service Regulations," practical map problems and the War Game.

The reasons for dropping the Wagner books from the garrison curriculum, except for reference, have already been stated.

2. The map problem of the first term, garrison schools, will involve units not greater than platoons; the second term, companies; the third term, battalions. Of the officers taking the post-graduate course, lieutenants will solve problems involving units not greater than battalions; captains, units not greater than regiments; and majors, units not greater than brigades.

One of the commonest errors in tactical instruction is the tendency to solve problems of a complex nature, before familiarity is gained with those of a simpler character. By making the tactical units studied, commensurate with the officer's rank and experience, but progressive in character, it is believed that officers will sooner or later thoroughly understand the handling of all the minor units before being promoted to higher command.

3. All map problems will be prepared at the Army Staff College, and transmitted to Department Commanders, and by them distributed to posts.

It will be easy to develop these problems at the Staff College, through the course in "Preparation of Problems," subject to review by the staff of the College. But to avoid the centralization, so pernicious in our service, the entire administration of tactical education at posts should, as at present, reside in the Department Commanders. The greatest advantage of the method suggested will be the securing of uniformity in the problems; and an approved solution, in keeping with the high standard of the Staff College.

4. Each officer will solve six preliminary problems and six record problems—four hours being allotted to the solution. All problems will be corrected and marked on a scale of five, but only the record problems will form part of the officer's record.

The preliminary problems will serve to give officers some idea of the method of solving tactical map problems, and this knowledge will be still further facilitated by the large number of problems now distributed by the Secretary of the Service Schools to officers at posts. Each preliminary problem should be followed by the record problem, involving the exposition of similar tactical principles. Suitable maps should be furnished with the problems.

5. Each Department Commander will designate from within his department two suitable officers: a field-officer to review the problems of the majors and captains taking the post-graduate course at the garrison schools; and a captain to review the problems of the garrison school proper, and of the lieutenants taking the post-graduate course.

These officers will be supplied with approved solutions from the

Staff College, but should be officers of such tactical ability as to give adequate credit to all solutions, irrespective of similarity to the approved solution. This reviewing of problems should aim to point out errors in such a way as to prevent repetition.

If it were possible, it would seem desirable that all problems of the same character, and of the entire army, be reviewed by one officer. But considering the enormous number of such problems, and the painstaking care involved in order to be exactly just and avoid complaint, it would seem impracticable to do otherwise than have selected officers review the solutions within each geographical department.

6. Each problem should, of course, bear only the officer's number—the names corresponding to the numbers being retained in the office of the adjutant-general of the department.

It is conducive to the satisfaction and peace of mind of both student-officers and of officers reviewing the problems, that the student-officer's identity be unknown until the problem is received at department headquarters for transmission to the proper officer at his post.

7. There will be ten war games, involving units not greater than a battalion, participated in by captains and lieutenants; and five war games, involving units not greater than a brigade, participated in by majors, captains and lieutenants.

It is believed that fifteen war games, if made compulsory, and strictly carried out in all details, are enough for the present. Officers should not be tired with this study. On the contrary, every effort should be made to popularize it. The earlier games might well consist of the maneuvering of but one side. It will always be within the power of the post commander to have additional games, should officers desire it, or should he find it expedient.

8. The war games of subordinate officers will be umpired by a suitable officer selected by the post commander; those of the higher units referred to above by the post commander and one assistant.

The matter of suitable umpires has always been a difficult one in our service, but it is believed that though at first the officers so designated be but indifferently equipped for this duty, the net results to a garrison will be wholly beneficial. Oftentimes the umpire will be the officer most benefitted, for he will become conscious of his shortcomings, and that his shortcomings will become subject of comment by others, unless he endeavors to improve himself. If the war game be played conscientiously for a few years, there will soon be plenty of efficient umpires.

It is believed that for every reason in the world our regimental field-officers should be umpires *par excellence*. Their rank and experience, as well as the responsible duties which will devolve upon them in case of war, should spur them to make every effort to conduct war games with skill and facility; and of pointing out in few words the tactical principles violated, with the alternative course, if any, which might have been pursued.

9. The war game problems should, as with the map problems, be prepared at the Army Staff College. In the earlier problems, the participants might be furnished by the post commander, with the situation, twenty-four hours before the game is to be played—this preparation period being reduced as proficiency increased.

At such army posts as have heretofore made the war game purely optional, it has been found that so soon as the first interest has worn off, there have ever been certain officers indifferent to its many advantages so soon as it was found that the game involved work. It

should, therefore, be considered a serious and formal military duty, and that an officer's efficiency in the map problems and the war game may, in the absence of testimony to the contrary, be considered a fair index of his tactical efficiency under service conditions, and that his superiors and comrades will probably rate him accordingly at his just valuation.

Post and regimental commanders should understand that the efficiency of their commands in field problems and in war will vary directly with the skill of their officers in these preparatory problems on the map.

10. The proficiency of officers in the war game will not be marked in numbers and figures, but the names of those who in the opinion of the umpires have exhibited special skill and aptitude will be specially commended on their efficiency reports; the others being rated as good, fair and poor or indifferent.

The solution at army posts of map-problems and map maneuvers, each distinct and beneficial in its own field, will be a constant stimulus to individual study and research. The questions which so constantly confront an officer in the field are, in the majority of cases, those which may confront him on the map. Hence, every conscientious officer will feel impelled to equip himself in every possible way for the task. The element of healthy competition, which, say what we will, is the foundation of all progress, will be stimulated by ratings on the efficiency reports. But more than this, each officer will, in a sense, be on trial by a jury of his comrades, who will weigh him in the balance.

All this should certainly stimulate every officer—from the colonel down to the last lieutenant, to acquit himself creditably.

FIELD MANEUVERS.

The practical value of field maneuvers or tactical problems on the ground is incontestable. But it is especially beneficial to those who have conscientiously prepared themselves theoretically, first, because the latter have clearly in mind the tactical principles which govern the military situation, and second, because a just appreciation of the difference between the map and the terrain is necessary to success.

General Bonnal says:*

When it becomes necessary to instantly solve in the best possible manner one of the innumerable problems which arise in the course of a campaign, be it a question of commanding a brigade or an army, knowledge and intelligence alone will not suffice; other eminent qualities of character and personal experience are indispensable.

*"Higher Military Studies in Germany and France," by General Bonnal (French Army).

Strength of character, a more or less innate quality, is developed by education and the exercise of command in all its degrees, from the lowest to the highest. In the days of long and frequent campaigns, experience could be acquired directly; but the "school of war by war," without doubt the most efficacious, is not of our epoch, for now operations are begun by decisive actions at the outset.

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It is a question of finding a method of military education which will replace the actual experience of real war—this substituted method to be artificial, but capable of producing equivalent results.

In other words, the method sought will have for its object the development in young officers of the aptitudes commonly known under the names of *coup d'œil* (situation at a glance), *sens militaire* (military intuition), and *esprit de décision* (spirit of decision).

Although the solution of tactical problems with troops on the ground has grown considerably in our army during the past seven or eight years, we are as yet very elementary in our standards. In other words, it is believed that we are not at present using the best system of tactical instruction possible. During the so-called drill-season, our officers work with no well-defined end in view, except, perhaps, to satisfy the inspector; there is no well-defined division of responsibility for tactical results, and responsible officers are not held to strict enough accountability for the results secured.

To obtain the best tactical results there should be a decentralization of tactical instruction as follows: After the target season, the battalion or squadron commanders will say to organization commanders, "During the first week in August, I propose to inspect your organization not only in close and extended order drills, but in the duties of patrolling, outposts and problems in minor tactics. You will have the months of June and July to prepare your commands." Similarly, the regimental commander will give his battalion or squadron commanders the month of August for preparation, making his inspection the first week in September. During the remainder of September, the post or regimental commander will undertake to prepare his command for the October inspection of the department commander—not merely an inspection of the post, but a test of the command for war, including small problems in minor tactics.

With our present organization into geographical departments instead of tactical units, it is believed that an annual inspection should be made by each general officer commanding a department, accompanied by his inspector-general, with a view to personally satisfying himself that his command is actually prepared

for war. The general who judges the tactical efficiency of his command from the vantage point of a revolving chair is not doing his whole duty to his command, and will, himself, soon deteriorate as a field-commander. After such inspection there should be a subsequent inspection for the War Department by the chief of cavalry, the chief of infantry and the chief of field-artillery, of their respective troops, more especially as to their technical knowledge of their duties. Such inspection would obviate the present very frequent criticism, that troops are inspected by officers not altogether familiar with the duties of the arm inspected.

Should the troops of a department be assembled in fall maneuver camps, this period will afford the best possible opportunity for inspections in tactical efficiency and preparedness.

It is a mistake to make these maneuver camps, which have now become a regular feature of tactical instruction in our army, too large and complex. For the present, camps which permit of field maneuvers by battalions, regiments and brigades, would seem best suited for our service, with an occasional concentration of several divisions, or an army corps of regulars and organized militia. In addition, it is detrimental to tactical efficiency to have portions of a regiment attend these maneuvers, piecemeal; the regimental commander should, so far as possible, have his regiment intact for the maneuver period. It is a fact that some regimental commanders rarely, and in some cases never, see their regiments assembled for the field. Under such circumstances, it is difficult to see how a regiment or its commander can be tactically proficient in field-service.

While every effort should be made at maneuver camps to vary the field-problems and prevent the work from becoming monotonous and irksome, officers should be made to understand that the War Department considers the field maneuvers as serious tests of an officer's tactical efficiency in the way he estimates the military situation, issues his orders and handles his men.

To make these field exercises serious tests of tactical preparedness, as well as to secure the best instructional results from the problems, there should be some one officer at each maneuver camp charged with reporting upon all officers who acquit themselves with particular credit, as well as those who show themselves to be tactically deficient. It would seem that this is the time of all others, the climax as it were, of the entire scheme of tactical instruction, to measure our officers by some one stand-

ard, and eliminate those who, through natural incapacity or, more frequently, through neglect of opportunities, are unsuited for the serious business of leading men in action. There is in every service a class of officers who—excellent practical soldiers—have difficulty in solving theoretical problems; and there is another class, not deserving of much consideration, who rather scoff at serious theoretical preparation for field-duties. Field maneuvers afford opportunity for both classes of officers to make good.

The officer who, from rank, experience and tactical ability, should be pre-eminently qualified to report upon subordinates, is the general officer in command; and it is believed that a wide-awake, efficient general will, in the course of a strenuous maneuver camp, be able to form a fairly just idea of the tactical ability of his field-officers; at all events, he should be able to note those who are tactically inefficient. In this he would be assisted by the inspector-general on his staff, and by the reports of the chief umpire and his assistants. In fact, the day should surely come when the commanding general of a camp of instruction is *his own chief umpire*. If such a practice were put in operation, new energy and enthusiasm would be put into field maneuvers by officers and troops; the general would, as in war, be in touch with the whole game, and the commander who showed his qualifications for such duty would gain enormous prestige and win the confidence of his entire command.

The effect of his reports upon the efficiency of his field-officers and others, should and would certainly have great weight with the War Department, both in awarding details for responsible duty and, in extreme cases, forming the basis of recommendation for retirement or disqualification for promotion. Such is the practice in the German service, and it certainly gives the German Government the highest possible military standard for its officers. If applied to our own service, and certainly there is no good reason why it should not be, the theoretical and practical study of tactics will take a fresh start.

Not until some such system of tests is put into operation, some way of drawing a line of demarkation between the officer of average ability and application and the drones of the service, will our tactical scheme of instruction be at its best. As compared in importance with physical tests in horsemanship, the latter pale into insignificance. Every officer owes it to himself and the Government, not only to keep himself in the best physical condition

for the hardships inseparable from war, but also to make every reasonable effort to prepare for the grave tactical responsibilities which come to the man who leads soldiers into battle.

Not that it is believed that the tactical rating of officers could be reduced to a mere sum in addition or subtraction. What is meant is that careful decentralization of responsibility, with periodic inspections by officers of proper rank and attainments, not merely in close order drills, ceremonies, white-washed tree-boxes and red-inked morning-reports, but in real preparedness for war, would result in an enormous impetus to our tactical standards. The great mass of our officers would probably be rated as satisfactory, a few would be noted as tactically excellent or exceptional, while a few others would be reported as tactically deficient or unfitted to command American soldiers in action.

But it must be added that we shall never secure even mediocre results; we shall never have officers put their whole hearts in this labor until, by the organization of an army service corps, it becomes possible for officers to work with their full organizations, and not become heart-sick over organizations depleted to skeleton proportions. We cannot put a premium upon the performance of unmilitary duty and get tactical results. But it is believed that the day is near at hand when the army of *soldiers* will be relieved by Congress of this incubus on its tactical efficiency.

It is believed that the army is only beginning to feel and realize its tactical shortcomings. Our recent campaigns, together with the system of garrison tactical instruction, and the rehabilitation of the service schools, is producing a very marked effect upon the army and National Guard. Starting from almost imperceptible beginnings, tactical development will continue to expand in a very marked degree during the next few years. We may soon expect to see a large number of field-officers gathered at Fort Leavenworth to reap the benefits of the tactical course, without being required to struggle through the maelstrom of the service schools. And at some later day there will be organized at Fort Leavenworth a great correspondence school for the National Guard, to prepare its officers theoretically for those annual field exercises to which the War Department will send its best officers. In that day and generation when we are forced to the dreaded alternative of war, we may hope to wage it, not with more desperate bravery, not with more lofty patriotism, not with

greater self-sacrifice than have the American soldiers who have preceded us, but with a more certain degree of tactical skill and intelligence, in keeping with our reputation in the domestic arts and sciences. At any rate, we may hope not to stumble through our future wars in that hit-or-miss fashion which has characterized the past, trusting in the grace of God and the proverbial luck of the United States.

And hand in hand with our tactical development, we must strive to educate the American public to a realization of our military unpreparedness and tactical shortcomings, considering in its entirety that *greater* American army upon which we must depend in time of war.

It has been unfortunate for us as a nation that we have habitually held that generals are born and are not the product of natural capacity, *developed* by study and practice. There may have been a day in the period of primeval man when battles were won without regard for strategy and tactics, but in the complex civilization of the twentieth century, war is not only an art, but a science.

Every military commander, from top to bottom, must know how to play the game correctly, or the aggregate sum of their tactical errors—no matter how small or insignificant in themselves—will lose the day.

U. S. ARMY STAFF COLLEGE,

Fort Leavenworth, Kans.,

April 30, 1908.

POSTSCRIPT.

This study was read before the Department of Military Art, Army Staff College, at the conference of April 30, 1908, and was deemed suitable for publication, as treating of a subject of vital interest and importance to the army, even though all officers may not entirely agree with the views expressed.

In the discussion of the paper which followed its reading, the writer's views, except as to a few minor details, were approved and endorsed. The chief differences of opinion related to the following:

1. It was held by certain officers that further development of the course in tactics at West Point was undesirable and unnecessary, for the reason that the Military Academy's principal function was to furnish a *general* scientific-military education, coupled with high standards of honor and of discipline; and that tactical instruction might well come as post-graduate work.

The writer agrees in the main with this contention. His suggestion of more advanced tactical instruction at the Military Academy was not intended to depart radically from previous standards; but rather to amplify the present course by giving more hours to the Departments of

Tactics and of the Art of War, at the expense of certain abstruse scientific studies. His views are no doubt influenced by remembrance of the tactical instruction of twenty years ago, when the graduate's knowledge of the subject was gained entirely from Mercur's "Art of War," and from two or three sham battles, which did more harm than good. The graduate of that period did not know how to conduct the movements of a simple patrol in the presence of the enemy.

The tactical course at the Academy is no doubt much better now. But that the average graduate of to-day does not know any too much about this important branch of his profession is apparent to umpires at field problems and maneuvers, and the oftentimes very mediocre work performed by graduates at the Service schools.

2. The consensus of opinion held that map problems reviewed in each geographical department, under the direction of the Department Commander, should be marked, not on a numerical scale, but simply as "excellent," "good," "poor," "unsatisfactory," or the like.

This suggestion is approved by the writer. But in such case it is all the more imperative that the review indicate in some manner the faults of the solution, or preferable dispositions of troops.

3. It was suggested that the proposed decentralization of tactical instruction in military departments be still further developed by having map problems and map maneuver problems prepared within the department, instead of at the Army Staff College.

The provision for such preparation at the Army Staff College was simply for the sake of uniformity, and therefore of greater justice in the comparison of officer's work. It is a well-known fact that in the departmental examinations of enlisted men for commissions the tests in one department have oftentimes been of double the severity that obtained in a neighboring department, provoking unfavorable criticism and a certain sense of injustice in the minds of participants.

It was to guard against such a tendency that the preparation of all problems was assigned to the Staff College—at least, until the army is better acquainted with the work. The writer therefore still holds to his expressed views.

C. D. R.



ARE MEMBERS OF THE MILITARY FORCES IN THE PHILIPPINE ISLANDS ENTITLED TO A TRIAL BY JURY?

BY CAPTAIN EDWARD SIGERFOOS, LL.B., FIFTH INFANTRY.



AN intelligent determination of the question as to whether or not officers and soldiers of the United States Army serving in the Philippine Islands can, of right, demand trial by jury, when being tried by the civil courts for infractions of the law, will require a discussion of the question, "Does the Constitution, upon the acquisition of new territory by the United States, extend with the full force of all its provisions over the new territory immediately and of its own initiative?" and the conclusions of the Supreme Court of the United States as gathered from the cases already decided by that tribunal.

SOURCE OF THE POWER TO ACQUIRE TERRITORY.

The Constitution does not confer directly on our Government the right to acquire territory. It must be implied from powers directly conferred by the Constitution. In the early history of the United States, the Constitutional power to acquire territory was questioned by many eminent statesmen. President Jefferson, in a letter to Senator Breckenridge, of Kentucky, on August 12, 1803, denied the constitutionality of the acquisition of Louisiana. "The Constitution," he said, "has made no provision for holding foreign territory, still less for incorporating foreign nations into our Union. The executive, in seizing this fugitive occurrence, which so much advances the good of the country, has done an act beyond the Constitution."

Chief Justice Marshall, in *American Insurance Co. vs. Canter*,* said: "The Constitution confers absolutely on the Government of this Union the power of making war and of making treaties, consequently that Government possesses the power of acquiring territory either by treaty or conquest."

Mr. Justice Story, in his "Commentaries on the Constitution,"† says: "The power to acquire territory flows from the

**American Insurance Co. vs. Canter*, 1 Pet. 511.

†*Story's Commentaries on the Constitution*, P. 1281.

sovereignty of the United States over foreign commerce, war, treaties and imports."

In *Dorr vs. United States*,* the court said: "It is well settled that the United States may acquire territory in the exercise of the treaty-making power by direct cession as the result of war, and in making effectual the terms of peace, and for that purpose has the powers of other sovereigns. This principle has been recognized by this court from its earliest discussions."

INSTANCES OF THE ACQUISITION OF FOREIGN TERRITORY BY THE UNITED STATES.

Acquisitions of foreign territory by the United States have been numerous. The first acquisition was a result of the Revolutionary War, when the United States acquired the territory north of the Ohio River, afterward organized into the Northwest Territory. Between 1781 and 1802, the States ceded to the United States all their claims to territory outside their own immediate borders. In 1803, Louisiana was ceded to the United States by France, and Florida in 1819 by treaty with Spain. Congress admitted Texas as a State in 1845. California was acquired by conquest in 1848. The Gadsden Purchase was made by treaty with Mexico in 1853; Alaska was purchased from Russia in 1867; Hawaii was annexed by Act of Congress in 1900, and the Philippine Islands and Porto Rico were annexed as a result of the war with Spain in 1898.

There have been other acquisitions of territory, but the above are sufficient to show that the power, the existence of which was questioned during the early years of the United States, has been exercised at different periods from the beginning of the Government under the Constitution to within the last decade. Whatever the source of the power, whether implied from the authority of Congress to declare war, and of the President, by and with the advice and consent of the Senate, to make treaties, or an incident of national existence and sovereignty, the right to its exercise by Congress is no longer doubted by anyone, and the constitutionality of the acquisition of territory is not questioned by any judicial tribunal in the United States.

SOURCE OF THE POWER TO GOVERN ACQUIRED TERRITORY.

The source of the power to govern acquired territory, and its exercise by Congress, has been the cause of great differences of

* *Dorr vs. United States*, 195 U. S. 138.

opinion in the past. Mr. Justice Bradley, in *Mormon Church vs. the United States*,* in holding that Congress had power to repeal the charter of the church, said: "The power of Congress over the territories of the United States is general and plenary, arising from, and incidental to, the right to acquire the territory itself, and from the power given by the Constitution to make all needful rules and regulations respecting the territory and other property of the United States. It would be absurd to hold that the United States has power to acquire territory and no power to govern it when acquired. The power to acquire territory * * * is derived from the treaty-making power and the power to declare war. The incidents of these powers are those of national sovereignty, and belong to all independent Governments. The power to make acquisitions by conquest, by treaty and cession is an incident of national sovereignty. The territory of Louisiana, when acquired from France, and the territories west of the Rocky Mountains, when acquired from Mexico, became the absolute property and domain of the United States, subject to such condition as the Government, in its diplomatic negotiation, had seen fit to accept, relating to the rights of the people inhabiting these territories. Having rightfully acquired said territories, the United States Government was the only one which could impose laws upon them, and its sovereignty over them was complete * * *. Doubtless Congress, in legislating for the territories, would be subject to those fundamental limitations in favor of personal rights, which are formulated in the Constitution and its amendments; but those limitations would exist rather by inference and the general spirit of the Constitution from which Congress derives all its powers, than by any express and direct application of its provisions."

Chief Justice Marshall, referring to the Government of the Florida acquisition by Congress, said: "Florida continued to be governed by virtue of that clause in the Constitution which empowers Congress to make all needful rules and regulations respecting the territory and other property of the United States."† "That the power over the territories is vested in Congress, and that this power has been considered the foundation upon which the territorial government rests," was also asserted by Chief Justice Marshall.‡

**Mormon Church vs. United States*, 136 U. S. 1.

†*American Ins. Co. vs. Canter*, 1 Pet. 511.

‡*McCullough vs. Maryland*, 1 Wheat. 316. U. S. vs. *Gratiot*, 14 Pet. 526.

PROVISIONS OF TREATIES CEDING TERRITORY TO THE UNITED STATES.

The legal relations between the United States and the newly acquired territories have been the subject of treaties between the United States and foreign nations, and in many treaties in which territory has been ceded to the United States, the power of Congress to govern the territories has been recognized. The question first arose in connection with the purchase of Louisiana. The treaty provided that "the inhabitants of the ceded territory shall be incorporated in the Union of the United States, and admitted as soon as possible, according to the principles of the Federal Constitution, to the enjoyment of all the rights and privileges of the citizens of the United States; and in the meantime they shall be maintained and protected in the free enjoyment of their liberty and property and the religion which they profess. The seventh article also provides that the ships of Spain and France should be admitted for the next twelve years, "into the ports of New Orleans and all other legal ports of entry within the ceded territory, in the same manner as ships of the United States coming directly from France or Spain, or any of their colonies, without being subject to any other or greater duty on merchandise or other or greater tonnage than that paid by citizens of the United States."

Article VI, of the treaty with Spain for the purchase of Florida, provided that,* "The inhabitants shall be incorporated into the Union of the United States as soon as may be consistent with the principles of the Federal Constitution," and Article 15, that Spanish vessels, coming directly from Spanish ports, should be admitted, for the term of twelve years, to the ports of Pensacola and St. Augustine, "without paying either or higher duties on their cargoes or of tonnage than will be paid by vessels of the United States; and that during the same term, no other nation shall enjoy the same privilege within the ceded territory."

The Act of Congress annexing Hawaii provided for the payment of duty on certain articles entering Hawaii, whether coming from the United States, or other countries, much greater than the duty provided by the tariff laws of the United States then in force.

In the treaty with Spain,† the United States agreed, "for the term of ten years from the date of the ratification of the present

*8 Stat. 252.

†Treaty between Spain and the United States, Act IV.

treaty to admit Spanish ships and merchandise to the ports of the Philippine Islands, on the same terms as ships and merchandise of the United States."

If the Constitution of the United States extends, of its own force, to the territories without act of Congress, the provisions of the above treaties were clearly contrary to the Constitution, which provides that "all duties, imposts and excises shall be uniform throughout the United States,"* and that "no preference shall be given by any regulation of commerce or revenue to the ports of one State over those of another, nor shall vessels bound to or from one State be obliged to enter, clear or pay duties in another.†

The incorporation into these treaties of provisions to the effect that "the inhabitants shall be incorporated into the Union of the United States as soon as may be consistent with the principles of the Federal Constitution," was a clear recognition by the contracting powers and of the treaty-making power of the United States, that the latter could acquire, hold and govern territory, without such acquired territory becoming incorporated into the Union, and the Constitution extending over it of its own force.

REVENUE LEGISLATION FOR THE TERRITORIES.

Congress has proceeded on this construction of the Constitution in passing tariff and revenue laws for our territorial possessions, acquired in recent years, and their constitutionality has been upheld by the Supreme Court in opinions handed down in the so-called "Insular Cases."

In *Downs vs. Bidwell*,‡ the question is "whether merchandise brought into the port of New York from Porto Rico, since the passage of the Foraker Act, is exempt from duty, notwithstanding the third section of that Act, which requires the payment of 15 per centum of the duties which are required to be levied, collected and paid upon like articles of merchandise imported from foreign countries." The court was asked to hold that Porto Rico "became a port of the United States within that provision of the Constitution which declares that 'all duties, imposts and excises shall be uniform throughout the United States,'" and that "if Porto Rico be a part of the United States, the Foraker Act, imposing duties upon its products, is unconstitutional, not

*Constitution of the United States, Art. 1 Sec. 8.

†Constitution of the United States, Art. 1 Sec. 9.

‡*Downs vs. Bidwell*, 182 U. S. 244.

only by reason of a violation of the uniformity clause, but because of Sec. 9, Art. 1, which provides that vessels bound to or from one State cannot 'be obliged to enter, clear or pay duties in another.' " The court, in this case, upheld the constitutionality of the Foraker Act, but there was no opinion in which the majority of the court concurred. The following principles are quoted from the opinion of the judges who concurred in the majority decision :

"The island of Porto Rico is not a part of the United States within the provisions of the Constitution which declares that 'all duties, imposts and excises shall be uniform throughout the United States.' "

"There is a clear distinction between such prohibitions of the Constitution as go to the very root of the power of Congress to act at all, irrespective of time and place, and such as are operative throughout the United States, or among the several States."

"The civil government of the United States cannot extend immediately, and of its own force, over territory acquired by war. Such territory must necessarily, in the first instance, be governed by the military power under the control of the President as Commander-in-Chief. Civil government cannot take effect at once, as soon as possession is acquired under military authority, or even as soon as that possession is confirmed by treaty. It can only be put in operation by the action of the appropriate political department of the Government, at such time and in such degree as that department may determine."

"So long as Congress has not incorporated the territory into the United States, neither military occupation nor cession by treaty makes the conquered territory domestic territory, in the sense of the revenue laws. But those laws concerning 'foreign countries' remain applicable to the conquered territory until changed by Congress."

"It is sufficient to say that Congress has or has not applied the revenue laws to the territories as the circumstances of each case seemed to require and has specifically legislated for the territories whenever it was the intention to execute laws beyond the limits of the United States. Indeed, whatever has been the fluctuation of the opinion in other bodies, Congress has been consistent in recognizing the difference between the States and territories under the Constitution."

"Indeed it is scarcely possible that Congress could do a greater injustice to these islands than would be involved in holding that it could not impose upon the States, taxes and excises without extending the same taxes to them. Such requirement would bring them at once within our internal revenue system, including stamps, licenses, excises and all the paraphernalia of that system and apply it to territories which have had no experience of this kind and where it would prove an intolerable burden."

POWER OVER TERRITORIAL LEGISLATURES.

Congress has supreme control over the territorial governments, may abolish or change them, and may legislate for the people without the intervention of the territorial government or any of its departments.*

*National Bank vs. County of Yankton, 101 U. S. 129.

COURTS OF THE UNITED STATES AND COURTS OF THE TERRITORIES.

In *American Insurance Co. vs. Canter*,* the issue was whether or not the act of the territorial legislature of Florida, creating the court whose decision was under review, was constitutional. Chief Justice Marshall, referring to Art. III, Sec. 1 and 2 of the Constitution, said: "That the judicial clause did not apply to Florida, that the judges of the Superior Court of Florida held their offices for four years, that their courts are not constitutional courts in which the judicial power conferred by the Constitution on the general Government can be deposited, that they are legislative courts, created in virtue of the general right of sovereignty which exists in the Government, or in virtue of the territorial clause of the Constitution; that the jurisdiction with which they are invested is not a part of the judicial power of the Constitution, but is conferred by Congress in the exercise of the general powers which that body possesses over the territories of the United States; and that in legislating for them, Congress exercises the combined power of the general and of a State Government."

Justice Brown, in commenting on this case in *Downs vs. Bidwell*,† said: "It is sufficient to say that this case has ever since been accepted as authority for the proposition that the judicial clause of the Constitution has no application to courts created in the territories, and that, with respect to them, Congress has a power wholly unrestrained by it. We must assume, as a logical inference from this case, that the other powers vested in Congress by the Constitution have no application to these territories, or that the judicial clause is exceptional in that particular."

Mr. Justice Nelson, referring to territorial courts in *Benner vs. Porter*,‡ said: "They are not organized under the Constitution, nor subject to its complex distribution of the powers of government, as the organic law; but are the creations, exclusively, of the legislative department, and subject to its supervision and control * * *; neither were they organized by Congress under the Constitution, as they were invested with powers and jurisdiction which that body was incapable of conferring upon a court within a State."

**American Ins. Co. vs. Canter*, 1 Pet. 511.

†*Downs vs. Bidwell*, 9 How. 235.

‡*Benner vs. Porter*, 182 U. S. 242.

Good vs. Martin, 95 U. S. 90.

McAllister vs. United States, 141 U. S. 174.

DOES THE CONSTITUTION EXTEND IMMEDIATELY AND OF ITS OWN
FORCE OVER ACQUIRED TERRITORY?

Mr. Benton, in his history of the Dred Scott case, says that the doctrine that the Constitution extended to the territories, as well as the States, first made its appearance in 1848, and gives the opinion of Mr. Webster, one of the greatest constitutional lawyers the United States has produced. Mr. Benton says:

The novelty and strangeness of this proposition called up Mr. Webster, who repulsed as an impossibility the scheme of extending the Constitution to the territories, declaring that instrument to have been made for the States, not territories; that Congress governed the territories independently of the Constitution and incompatibly with it; that no part of it went to a territory but what Congress chose to send; and that it could not act of itself anywhere, not even in the States for which it was made, and that it required an act of Congress to put it in operation before it had effect anywhere.

The practical interpretation put by Congress upon the Constitution has been long continued and uniform to the effect that the Constitution is applicable to territories acquired by purchase or conquest, only when and in so far as Congress shall so direct.

The liberality of Congress in legislating the Constitution into all our contiguous territory has undoubtedly fostered the impression that it went there by its own force, but there is nothing in the Constitution itself, and little in the interpretation put upon it, to confirm that impression. In short, there is absolute silence upon the subject. The executive and legislative departments of the Government have for more than a century interpreted this silence as precluding the idea that the Constitution attached to these territories as soon as acquired, and unless such interpretation be manifestly contrary to the letter or spirit of the Constitution, it should be followed by the judicial department of the Government.*

TRIAL BY JURY.

From the foregoing opinions taken from the great cases decided by the Supreme Court, we must conclude that the Constitution does not extend of its own force over the territories, but that it must be carried to them by act of Congress, and that the power of the latter to govern them is almost, if not entirely, without limitation; and furthermore, that the Government has acted on this principle in governing the territories during its entire history. It therefore remains to determine what effect this practice of more than a hundred years has had upon the question of trial by jury in the territories, and more particularly in the Philippine Islands.

*Downs vs. Bidwell, 172 U. S. 244.

The provisions of the Constitution which refer to trial by jury are:

1. "The trial of all crimes, except in cases of impeachment, shall be by jury; and such trials shall be held in the State where the said crimes shall have been committed, but when not committed within any State, the trial shall be at such place or places as the Congress may by law have directed."*
2. "No person shall be held to answer for a capital or otherwise infamous crime, unless on a presentment or indictment by a grand jury, except cases arising in the land and naval forces or in the militia when in actual service in time of war or public danger."†
3. "In all criminal prosecutions the accused shall enjoy the right to a speedy and public trial by an impartial jury of the State and district wherein the crime shall have been committed."‡

In *Reynolds vs. United States*,§ a law of the territory of Utah, providing for grand juries of fifteen persons, was held to be constitutional, though Sec. 808, R. S., requires that a grand jury empanelled before any circuit or district court of the United States shall consist of not less than sixteen nor more than twenty-three persons. Sec. 808 was held to apply only to the circuit and district courts of the United States.

In *In Re Ross* case,|| the petitioner had been convicted by the American Consular Tribunal in Japan, of a murder committed on board an American vessel in the harbor of Yokohama, and sentenced to death. There was no indictment by a grand jury and no trial by petit jury. The Supreme Court affirmed the conviction, holding that the Constitution had no application, since it was ordained and established for the United States of America and not for countries outside their limits. "The guaranties it affords against accusation of capital or infamous crimes, except by indictment or presentment of a grand jury and for impartial trial by a jury when thus accused, apply only to citizens and others within the United States, or who are brought there for trial for alleged offenses committed elsewhere, and not to residents or temporary sojourners abroad."**

In *Hawaii vs. Mankichi*,†† the petitioner had been convicted on an indictment for manslaughter, not found by a grand jury, by a verdict of nine out of twelve jurors, the other three having dissented from the verdict. The court held, "That the resolution

*Art. III, Sec. 2, Const. of U. S.

†Fifth Amend. to Const.

‡Sixth Amend. to Const.

§*Reynolds vs. U. S.*, 98 U. S. 145.

||*In Re Ross*, 140 U. S. 453.

***Downs vs. Bidwell*, 182 U. S. 144.

††*Hawaii vs. Mankichi*, 190 U. S. 197.

of annexation did not incorporate the islands within the United States and render them subject to all the limitations of the Constitution, that there are certain fundamental rights which the court protects wherever the sovereignty of the United States extends; that the right to be indicted by a grand jury and to be tried by a petit jury is not fundamental; that the fifth and sixth amendments enforcing the right apply only to the Federal courts, and that a citizen of the United States in a criminal prosecution in a State court may be deprived of his life, liberty and property by due process of law, without indictment of a grand jury and without unanimity in the verdict of a petit jury, is the established doctrine of this court;* that it thus appears that the Hawaiian Islands in providing for an indictment without a grand jury and for conviction without the unanimous verdict of a petit jury, was only doing what a State of the Union may do under the Constitution; that the fifth and sixth amendments apply only to the courts of the United States."

TRIAL BY JURY IN THE PHILIPPINES.

Congress, in the Act of 1902, providing for a temporary Government for the Philippines, expressly provided that Sec. 1891, R. S., 1878, should not apply. This is the section of the Revised Statutes which gives force and effect to the Constitution and laws of the United States, not locally inapplicable within all the organized territory and those to be thereafter organized within the United States.

The President, in his instructions to the Philippine Commission, expressly reserved the right to trial by jury.

TRIAL BY JURY NOT A FUNDAMENTAL RIGHT.

In the case of *Dorr vs. United States*,† the petitioner had been tried in Manila on an information filed against him before the Court of First Instance, without a jury, and convicted of criminal libel. Trial by jury was demanded and refused, the Code of the Philippine Islands not providing for such procedure. The case was appealed to the Supreme Court of the Philippines, and thence to the Supreme Court of the United States, where the

**Brun vs. N. J.*, 175 U. S. 172.

Ex parte Regal, 114 U. S. 642.

Iowa Cent. R. R. vs. Iowa, 160 U. S. 189.

†*Dorr vs. United States*, 195 U. S. 138.

conviction was affirmed. Justice Day, in rendering the judgment, said:

If the right to trial by jury were a fundamental right which goes wherever the jurisdiction of the United States extends, or if Congress, in framing laws for outlying territory belonging to the United States, was obliged to establish that system by affirmative legislation, it would follow that, no matter what the needs or capacity of the people, trial by jury, and in no other way, must be forthwith established, although the result may be to work injustice and provoke disturbance rather than to aid the orderly administration of justice. If the United States, impelled by its duty or advantage, shall acquire territory peopled by savages, and of which it may dispose or hold for ultimate admission to statehood, if this doctrine is sound it must establish there the trial by jury. To state such a proposition demonstrates the impossibility of carrying it into practice. Again, if the United States shall acquire by treaty the cession of territory having an established system of jurisprudence, where jury trial is unknown, but a method of fair and orderly trial prevails under an acceptable and long established code, the preference of the people must be disregarded, their established customs ignored, and they themselves forced to accept, in advance of incorporation into the United States, a system of trial unknown to them and unsuited to their needs. We do not think it was intended in giving power to Congress to make regulations for the territories, to hamper its exercise with this condition.

We conclude that the power to govern territory, implied in the right to acquire it, and giving to Congress, in the Constitution,* to whatever limitations it may be subject, the extent of which must be decided as questions arise, does not require that body to enact for ceded territory, not made a part of the United States by Congressional action, a system of laws which shall include the right of trial by jury and that the Constitution does not without legislation, and of its own force, carry such right to territory so situated.

It is therefore settled by the decided cases above referred to, that trial by jury is not a part of the system of the laws of the Philippine Islands, and will not be until enacted for them by Congress.

OFFICERS AND SOLDIERS OF THE ARMY SERVING IN THE PHILIPPINES ARE AMENABLE TO THE LOCAL LAWS.

Are officers and soldiers of the army, serving in the Philippines, amenable to the local laws, or are they in a class by themselves by reason of the fact that they are in the islands, not of their own free will, but in obedience to the orders of the commander-in-chief, the President of the United States?

In *U. S. vs. Kirby*,† the court said: "No officer of the United States is placed by his position, or the services he is called on

*Art. IV, Sec. 3.

† *U. S. vs. Kirby*, 7 Wall. 482.

to perform, above responsibility to the legal tribunals of the country, and to ordinary processes for his arrest and detention when accused of felony."

Whoever violates law is amenable to the law violated, and must be tried by it whether in a State or territory, or in a foreign possession.*

In the case of *Grafton vs. United States*,† the appellant, an American soldier, was convicted of a homicide, committed while a sentinel on post in the Philippines, and sentenced to imprisonment in the penitentiary for twelve years and one day. He was never indicted by a grand jury, and was tried before a native judge without a jury. He had been previously tried for the same offense by a general court-martial of competent jurisdiction and acquitted. He demanded a trial by jury and also plead the previous trial and acquittal by court-martial. The case was appealed to the Supreme Court of the Philippines, where the sentence was affirmed. It was then appealed to the Supreme Court of the United States, where the judgment was reversed on the ground of double jeopardy, a consideration of the question of trial by jury not being necessary to a decision of the case. But in the light of the *Dorr* case, *supra*, it is fortunate that there were grounds for reversal other than the failure to try by a jury.

It must then be concluded from the unbroken line of decisions of the Supreme Court, that officers and soldiers of the United States Army, serving in the Philippines, are amenable to trial by the civil courts for offenses committed against the laws of the Islands, and that trial by jury will not be accorded them, unless Congress, at some future time, shall extend that provision of the Constitution to the Islands. Fortunately the Supreme Court, in the *Grafton* case, opened a way to avoid this difficulty in most instances, namely, trial by general court-martial. It therefore behooves the military authorities to take immediate jurisdiction over offenses, not capital, against the civil law, committed by members of the military forces, for, under that decision, the judgment of the first court to take jurisdiction will prevail.

**In Re Ross*, 140 U. S. 453.

†*Grafton vs. U. S.*, 206 U. S. 333.

SOLDIERS' CLOTHING: ITS ILLEGAL PURCHASE AND HOW TO PUNISH THE OFFENDING PURCHASER.*

BY CAPTAIN HOWARD R. HICKOK, FIFTEENTH CAVALRY.



THE crime of purchasing soldiers' clothing is prevalent in the vicinity of most military posts. Its baneful influence on discipline is well known. The moral duty of all officers, and particularly of commanding officers, requires that they shall break up the practice as far as lies within their power. Officers responsible for discipline are generally desirous of breaking up the practice, and would frequently take the necessary steps, if they knew what the law authorizes and what procedure should be followed in pursuance of law. With the end in view of setting forth this information, the following is presented.

For a better understanding of the subject, a concrete case will be assumed, as follows:

STATEMENT OF THE CASE.

On December 5, 1907, A— B—, a civilian doing business in Leavenworth, Kansas, was arrested and brought before a United States commissioner for buying on December 1, 1907, from C— D—, a private soldier in the United States Army, a military overcoat, which had been regularly issued to the soldier on November 1, 1907, immediately after his enlistment.

OFFENSE CHARGED.

The defendant is charged with having, on December 1, 1907, bought from C— D—, a soldier then in the service of the United States, a military overcoat, which had been regularly issued to the soldier on November 1, 1907, after his enlistment as a soldier.

To constitute an offense, the purchase on the part of the defendant of the military overcoat must be in violation of some law of the United States.

THE LAW.

The law bearing on the case is as follows:

Article of War 17, in Section 1342, Revised Statutes of the United States:

*Written for the Department of Law, Army Staff College.

"Any soldier who sells or through neglect loses or spoils his horse, arms, clothing, or accouterments, shall be punished as a court martial may adjudge, subject to such limitations as may be prescribed by the President by virtue of the power vested in him."

Section 1242, Revised Statutes:

"The clothing, arms, military outfits and accouterments furnished by the United States to any soldier shall not be sold, bartered, exchanged, pledged, loaned, or given away; and the possession of any such property by any person not a soldier or officer of the United States shall be *prima facie* evidence of such sale, barter, exchange, pledge, loan or gift. Such property may be seized and taken from any person, not a soldier or officer of the United States, by any officer, civil or military, of the United States, and shall, thereupon, be delivered to any quartermaster, or other officer authorized to receive the same."

Section 3748, Revised Statutes:

"The clothes, arms, military outfits and accouterments furnished by the United States to any soldier shall not be sold, bartered, exchanged, pledged, loaned or given away; and no person not a soldier, or duly authorized officer of the United States, who has possession of any such clothes, arms, military outfits or accouterments, so furnished, and which have been the subject of any such sale, barter, exchange, pledge, loan, or gift, shall have any right, title, or interest therein; but the same may be seized and taken wherever found by any officer of the United States, civil or military, and shall thereupon be delivered to any quartermaster, or other officer authorized to receive the same. The possession of any such clothes, arms, military outfits, or accouterments, by any person not a soldier or officer of the United States shall be presumptive evidence of such a sale, barter, exchange, pledge, loan or gift."

Section 5438, Revised Statutes:

" * * * and every person who knowingly purchases or receives in pledge for any obligation or indebtedness from any soldier, officer, sailor, or other person called into or employed in the military or naval service any arms, equipments, ammunition, clothes, military stores, or other public property, such soldier, sailor, officer or other person, not having a lawful right to pledge or sell the same, every person so offending in any of the matters set forth in this section shall be imprisoned at hard labor for not less than one nor more than five years, or fined not less than one thousand nor more than five thousand dollars."

Act March 3, 1875, 18 Statutes at Large, 479:

"Be it enacted, etc., That any person who shall embezzle, steal or purloin any money, property, record, voucher, or valuable thing whatever, of the moneys, goods, chattels, records, or property of the United States, shall be deemed guilty of felony, and on conviction thereof before the district or circuit court of the United States in the district wherein said offense may have been committed, or into which he shall carry or have in possession of said property so embezzled, stolen or purloined, shall be punished therefor by imprisonment at hard labor in the penitentiary not exceeding five years, or by fine not exceeding five thousand dollars, or both, at the discretion of the court before which he shall be convicted.

"Section 2. That if any person shall receive, conceal, or aid in concealing, or have, or retain in his possession with intent to convert to his own use or gain, any money, property, record, voucher, or valuable thing whatever, of the moneys, goods, chattels, records, or property of

the United States, which has theretofore been embezzled, stolen, or purloined from the United States by any other person, knowing the same to have been so embezzled, stolen, or purloined, such person shall, on conviction before the circuit or district court of the United States in the district wherein he may have such property, be punished by a fine not exceeding five thousand dollars, or imprisoned at hard labor in the penitentiary not exceeding five years, one or both, at the discretion of the court before which he shall be convicted:

"And such receiver may be tried either before or after the conviction of the principal felon, but if the party has been convicted, then the judgment against him shall be conclusive evidence in the prosecution against such receiver that the property of the United States therein described has been embezzled, stolen, or purloined."

The subject naturally divides itself into three parts:

- I. The illegal sale on the part of the soldier.
- II. The recovery of the property thus illegally disposed of.
- III. The punishment of the offending purchaser.

I. THE ILLEGAL SALE.

With the first of these subjects—the punishment of the offending soldier—military procedure is simple and well known. The Seventeenth Article of War furnishes the remedy. It is with the second and third divisions—the recovery of the property illegally sold and the punishment of the offending purchaser—that we are particularly here concerned.

II. RECOVERY OF THE PROPERTY.

Officer in Charge of Proceedings.—Whenever proceedings are contemplated, an officer should be designated to take charge of the matter, securing evidence as to the identity of the offending parties, procuring warrants, witnesses, etc., and giving such assistance to the marshal who executes the warrants and to the United States attorney who presents the case, as may be necessary. If necessary, the officer should be placed on special duty, in order to enable him to devote more time to handling the matter. In order to avoid giving warning to offenders, he should work secretly and have the fewest confidants necessary.

The Offending Parties.—The civilians in the vicinity of a post who buy soldier's clothing are usually well known, or can be easily ascertained. Having found out who the offenders are, the next point is to determine whom it is desirable to prosecute. To attempt too much is useless and increases the liability of errors, and errors, in dealing with the law, are fatal to success.

The only object of the prosecution is to break up the market, and this can be done more effectually by a thorough prosecution of two or three well-selected cases. Since convictions cannot be secured without evidence, the identification of the clothing to be seized and the availability of witnesses may be deciding factors in determining whom to prosecute. Considering the foregoing, the principal offenders should be selected and they should preferably be property owners who have something at stake in the vicinity. They will most probably fight the case and, hence, the case should be a good one. A conviction against them will then be more effective and a greater deterrent to others. Notwithstanding the undesirableness of saloonkeepers and of their existence in the vicinity of posts, they are not the best subjects, other things being equal for prosecution. By the gratuitous use of liquor they can frequently adversely affect true testimony and the course of justice. Liquor was notoriously used in such connection in two cases at Fort Thomas, Kentucky.

Locating the Clothing to be Seized.—The next step is to locate the clothing to be seized, securing evidence upon which to make application for a search-warrant. This may be done by sending out parties to buy or sell. Civilians who would allow themselves to be employed for this purpose are rarely of reliable enough character to be trusted. Officers are usually too well known and their identity too difficult to conceal to enable them personally to obtain the evidence. The better class of soldiers is interested in seeing the practice of selling clothing broken up, on account of the fact that their clothing is frequently stolen for the purpose of sale. Trustworthy men can thus frequently be selected to secure the evidence. It is best that the soldier sell or pledge some article of clothing while getting the above information, for the reason that such sale will furnish a specific offense to set forth in the applications for warrants, the chances of recovering the articles are good, and the evidence of such sale can be used before the grand jury and before the petit jury on the trial. Before applying for a search warrant, the full name of the offenders and an accurate description of the premises to be searched should be obtained and a list of articles to be seized prepared. This list should cover every article that may be found. Application for the warrants should be made quietly and without delay, in order to avoid the possibility of the articles being disposed of in the meantime.

Obtaining the Warrants.—Application should be made for

two warrants—a search warrant and a warrant of arrest. There is no specific authority in the United States statutes for the issuance of search warrants in cases of this character; but Section 3748, Revised Statutes, confers a right of search, and the IV Amendment to the United States Constitution requires that a warrant shall issue in every case of search. Under Section 1014, Revised Statutes, and the Act of May 28, 1896, the entire proceeding should be had in the United States courts. No warrants should be obtained from the local or State authorities, for they are liable to be prejudiced in favor of the civilians and may cause the search to fail.

The United States Commissioner for the district should, upon application made to him, issue the search warrant. He is vested with much discretion and, upon the application being made to him, if he refuse to issue the warrant, a tactful effort should be made to induce him to do so. Should he still refuse, the United States district or circuit judge for that judicial district, upon having the case explained to him, will probably order the commissioner to issue the warrants. Many civil authorities do not understand the significance of the crime of purchasing soldiers' clothing. These officers are sometimes reluctant to prosecute, due to a belief that the minimum legal penalty is too great. By using a little tact and by an explanation of what the offense means to the military service and of the attitude of the War Department in reference to it, the reluctance to prosecute will usually disappear and the hearty cooperation of United States commissioners, judges and district attorneys will be obtained.

The district attorney may finally refuse to prosecute, even with a good case in hand. In that event, application should be made through military channels to the War Department, setting forth the facts and the objections of the district attorney and requesting that the matter be laid before the Department of Justice for action. The War Department is favorable to such prosecutions and, if the case be a good one and there be no cogent reasons to the contrary, the Department of Justice, after the necessary inquiry, will probably direct the district attorney to prosecute the case.

In order to avoid all complications, the search warrant should under no circumstances be directed to the officer in charge of the proceedings, but to the marshal or his deputy. The name of the marshal, or of his deputy, who is to execute the warrant should be obtained and the officer in charge of the proceedings should

consult with him and arrange as to times and methods of operations. The marshal should be requested to ask the commanding officer for an officer and men to assist in receiving the property. The commanding officer will then detail the officer as the one authorized to receive the property seized, as set forth in Sections 1242 and 3748 of the Revised Statutes.

Legal Forms Used.—As stated above, there is no specific authority in the United States statutes for the issuance of search warrants in cases of this character; hence, no legal form is prescribed. The commissioner may use the local form of the State. Or, he may use some other form of the United States changed to suit the case. Appendices "A," "B" and "C" are the forms used locally, filled out to cover the assumed case. United States' forms used in another class of cases are here modified, and "A" and "B" are the results. If the commissioner had used the local forms (State of Kansas) properly changed, there would have been no legal objection.

Appendix "A" is an application for a search warrant. In this one a specific purchase is stated. The constitutional requirement (IV Amendment of the United States Constitution) precedent to issuance of a search warrant is: ".....and no warrants shall issue, but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the person or things to be seized." In cases where the offending party is well known to the officer and he has strong reasons to believe that articles are in the possession of the party, without the officer knowing who may be the soldier making the sale, the application could, nevertheless, be truthfully made without including that detail. The application should, as in this example, contain a blanket clause to the effect that the offender "has at divers other times than on the date set forth above, purchased other articles of clothing, to wit: hats, caps, overcoats, uniforms, underclothing, shoes, shirts, etc., etc., from soldiers in the employ of the military service of the United States, contrary to law."

Appendix "B" is the search warrant.

Appendix "C" is the form of complaint for warrant of arrest. This is a necessary formality, required in all cases, except where an offense is committed directly under the eye or knowledge of the law officer, marshal, etc. The complaint should charge the party with violation of Section 5438, or of the Act of March 3, 1875 (18 Stat. at Large, 479), as the case may be.

The warrant for arrest would be directed to the marshal, or his deputy, and in its execution the superintending officer should be careful not to interfere. Of course, he will keep his eye open to see that the matter proceeds satisfactorily.

The blank forms—application for search warrant and complaint for arrest—may be obtained from the commissioner who is to issue the warrants.

Execution of the Warrants.—The next step is the execution of the search warrant and the warrant of arrest. These may be executed at the same time, though the warrant for arrest could be executed, without detriment, subsequently to execution of the search warrant, and probably would be. The officer in charge of the proceedings, with the necessary detail of soldiers to handle the property to be recovered, should accompany the marshal. Precautions should be taken to prevent information getting out as to what is going on. For example, the detail should keep out of sight until after the marshal and the officer have entered the place to be searched. Similarly, if more than one place is to be searched, the searches should all be made the same day and with as much celerity and other precautions possible, in order to prevent the spread of information. If this be not done, searches subsequent to the first will probably fail. In executing the warrants, the officer should point out to the marshal the articles to be seized. The marshal should do the seizing. The articles should be tagged or otherwise labeled for future identification, the label including the date when seized, name of the party from whom seized, and marks found on the clothing itself. The officer should make for himself personally such memoranda as will enable him to identify at the subsequent trial these articles as the ones seized. Section 3748, Revised Statutes, contains an important rule of evidence; to wit, "The possession of any such clothes, arms, military outfits, or accouterments, by any person not a soldier or officer of the United States shall be presumptive evidence of such sale, barter, exchange, pledge, loan or gift." By this rule, the clothing itself is the best evidence of the sale and purchase, and, for that reason, no detail that will insure its identification should be omitted.

A receipt for the articles seized should be given the marshal, to enable him to make a return to the writ, and the clothing removed and stored in a safe place to be used as future evidence, should the parties be tried. Care should be used that nothing but Government property is taken, and no books, papers nor memo-

randa belonging to the party, however much they may be desired, should be carried away. It may be that the commissioner will want to retain custody of the property until the case is disposed of. However, Sections 1242 and 3748, Revised Statutes, provide that it shall be turned over to the officer authorized to receive as same.

The Right of Search.—It may be thought that Sections 1242 and 3748, Revised Statutes, give officers the right to enter all places to search for the articles enumerated and to seize them wherever found. The right to seize does not include the right to search. Amendment IV to the United States Constitution governs the right of search. This subject is ably discussed in an article entitled, "Stolen or Embezzled Government Military Property," by Maj. D. H. Boughton, Eleventh Cavalry, then Senior Instructor, Department of Law, Army Staff College (*Journal U. S. Cavalry Association*, April, 1906, page 776 *et seq.*), which, in part, is as follows:

"From these statutes (1242 and 3748) it is seen that the right of seizure by the military is limited to property that has been issued to a soldier, and does not apply to Government property in general, and that the seizure, if made, must be by an officer

"These statutes were originally enacted during the Civil War and were evidently intended to furnish the military a summary means of recovering Government property that had been issued to soldiers, and which they had unlawfully disposed of, the stress of circumstances rendering recovery by the slower legal processes impossible.

"When the necessity for such seizure actually exists it may be resorted to, but unless the necessity is real this summary procedure, in my opinion, should be avoided. Such procedure would ordinarily involve the invasion of the premises and privacy of citizens, and would be in derogation of their constitutional rights of being secure in their persons, houses, papers, and effects, against unreasonable searches and seizures (4th Amendment).

"If the necessity for such search and seizure is real they would not be unreasonable.

"It may often happen that troops on the march, or in other situations, may not be within reach of the necessary legal agencies that would enable them to recover property unlawfully disposed of by soldiers, and that delay would result in the total loss of the same. In such cases it would be the duty of the officers interested to seize the property wherever it could be found."

"But in making seizures as authorized in Section 1242, to what extent are officers authorized to search for property? This section is not a general search warrant, and therefore an officer would not be justified in making a general search. Should he proceed in this manner he would probably be held liable in damages. He should search only those places where he has probable cause for believing that the property is concealed or stored, and probable cause sufficient to justify the

officer in making the search will exist whenever, from the information in his possession, he would be willing to go before a magistrate and swear out a search warrant."

III. PUNISHMENT OF THE OFFENDING PURCHASER.

Hearing Before the United States Commissioner.—The clothing having been seized and the party arrested, he is next brought before the United States Commissioner for a preliminary hearing. In this hearing, as well as in the investigation by the grand jury and in the prosecution in court, the officer should assist in every way possible the United States District Attorney, who prosecutes in the name of the United States. He should identify the articles, explaining terms used in and customs of the service not known to the attorney, and in every proper way assist in clearing up the issue. The district attorney is theoretically supposed to conduct the preliminary hearing before the commissioner, though this duty is usually left to the commissioner. The defendant may waive the preliminary hearing. Nevertheless, the Government should be prepared then and there to prove in each case at least one violation of Section 5438, Revised Statutes. One is sufficient, and any further evidence will unnecessarily expose witnesses. As the defendant may attempt to induce witnesses to desert, their identity should be kept secret as long as possible. If the defendant waive the preliminary hearing, or if the commissioner find there is sufficient cause to hold him, the defendant is bound over to the grand jury.

Investigation by the Grand Jury.—In order to prepare the evidence for the grand jury, it is necessary to find the former owners of the property seized that these men may be used as witnesses. In this many difficulties may be met with, due to lack of system and care in requiring clothing to be marked with name of the soldier to whom issued and the date of issue. Some clothing may not even be marked, giving no clue even of the organization to which the soldier belongs. In addition to the evidence especially made for the occasion (see above under "Locating the Clothing to be Seized"), other soldiers who have sold clothing may, under promise of immunity, be induced to come forward and testify. Some of the clothing seized may possibly be identified as belonging to men who have deserted. In that case, the defendants could be charged with having purchased it from deserters.

A list of witnesses should be furnished to the district attor-

ney, and he should be requested to subpoena all witnesses, military as well as civil. This will enable the quartermaster to furnish transportation, under paragraph 75, Army Regulations, to enlisted witnesses.

A better showing can be made before the grand jury and also in court if it can be made to appear, as is the usual case, that the defendant is an habitual offender and that the case on trial is not an isolated one. In this investigation, it is well to confer with the district attorney, setting forth the counts to be presented, and learn from him how much evidence the grand jury will require; for, it is not best at this time to expose witnesses unnecessarily. The evidence acceptable by a grand jury is not necessarily the same that would be accepted in court, being less bound by technical rules and objections. For example, in one case the grand jury accepted as evidence a court martial record in which the defendant had testified that he had purchased certain stated articles of clothing. This record was not admitted as evidence in the trial.

The Trial.—In event the grand jury return an indictment against the defendant, the case will, in the regular course of events, come up for trial in the United States Circuit or District Court. The district attorney is still in charge, though the officer detailed on behalf of the military will be able to assist him materially.

Illegal Purchase of Arms and Equipments.—Should the soldier sell or pledge either the arms or equipments issued to him or others that he may have stolen, the mode of procedure against a civilian purchaser would be the same as that just outlined in the case of purchase of soldiers' clothing.

[TO BE CONTINUED.]



SMALL ARMS AMMUNITION SUPPLY.*

BY FIRST LIEUTENANT R. E. BEEBE, FOURTEENTH INFANTRY.

AMMUNITION CARRIERS.

BELTS.



THE belts in which the men carry their cartridges are of considerable importance, and should be constantly inspected and kept in good condition to prevent loss of ammunition. The Boers obtained considerable ammunition from the lines of march and camping-grounds of the British. The cartridges were thrown out of their receptacles by the trotting of the horses, or fell out while the men lay on the ground. When clips break loose, cartridges will work out of our present belt-pockets. Men should be instructed to repair broken clips, and when that is not practicable, to carry loose cartridges in their clothes pockets.

The importance of not allowing the man to completely exhaust his ammunition without direct orders from an officer is conceded. Mayne says, in "The Infantry Weapon and Its Use in War," p. 159:

"Owing to the possible disastrous consequences that may result from a premature expenditure of the ammunition carried by the men, an excellent suggestion has been made, that a portion—say thirty rounds—of the ammunition carried by every man should be treated as 'emergency ammunition,' which, like the 'emergency ration,' should not ever be used without the express order of the senior leader present locally. If such 'emergency ammunition' was laid down by regulation, and was carried in a special pocket or receptacle, it would ensure, as far as possible, that the men would not, under any circumstances, be entirely without ammunition, except for very good cause. In European fighting, where extensive use of cavalry for shock purposes is practiced, the adoption of the principle of 'emergency ammunition' might often be the salvation of the infantry."

*Concluded from July Number.

Major Kuhn says, in his report on the Russo-Japanese War:

"As a rule, the Japanese infantry, on going into action, is supplied with extra ammunition carried in haversacks, bento bags, etc., so that each man has a total of 300 to 400 rounds. As soon as he has expended his 'extra' ammunition, and before touching that in his belt pouches (120 rounds), he reports himself to his officers as 'entirely out of ammunition.' "

Thirty rounds is a good reserve and is recommended. To make certain that the soldier will not fire it away without having some indicator, a different fastener on three of the belt-pockets is advisable. To fasten the pockets by wire would make them too inaccessible, but to have three of the present fasteners on each of the reserve pockets would surely call attention and be practical also. In the meantime, until some such arrangement is provided for, it would seem advisable for regimental commanders to prescribe which belt-pockets shall be for the reserve or "emergency" ammunition, and to require that the clips carried in those pockets have a piece of bandolier string tied about them, to call attention to the soldier, at once, when he begins to use them. Soldiers should be required to report to the next superior, and non-commissioned officers to the company commander, when all ammunition, except the reserve, is exhausted.

CARRIERS FOR BATTALION AMMUNITION.

Pages 119 and 120 of our Field Service Regulations contemplate the use of an ammunition-wagon made with a limber and rear chests like a caisson. The quartermaster-general has this year (1908) stated, "No steps have been taken looking to the adoption of any special type of wagon for the purpose of carrying ammunition in the field. It is understood that several years ago, when the matter of a special type of wagon was brought up by the General Staff, it was decided by the then Chief of Staff, General Chaffee, that escort-wagons, as supplied by the Quartermaster's Department, would be used as ammunition-wagons."

The advantage of a limber is to give a wagon easily turned about, available for rough country, and a light cart when the limber is detached from the chests. It has the disadvantage of being a special type and not easy to replace, nor is it probable that Congress will ever consent to their preliminary manu-

facture and storage. But it is certain that the country will be able to furnish wagons of the escort type. Theorizing on carts should be abandoned, therefore; the escort-wagon should be adopted and regulations adopted for its use.

The escort-wagon, when loaded, is confined to the road on hard ground, and its ability to follow infantry with ammunition is limited; but the four mules that pull it can carry on their backs eight boxes, or one-third of the load. To effect this a light, simple pack-saddle of the cross-tree variety, designed particularly for ammunition, should at once be adopted and supplied to the army and National Guard. Regulations should provide that ammunition-wagons carry four of these pack-saddles. On this subject the writer addressed a letter to Chief Packer H. W. Daly, Quartermaster's Department, and discussed the matter with him personally. His written reply follows:

"I have the honor to acknowledge receipt of your letter dated Army Service School, Fort Leavenworth, Kans., February 22, 1908—Subject: Ammunition supply for infantry—using draft-mules, as employed with the ordinary escort-wagon (four-mule team) as pack-mules over rough or mountainous country not accessible to wagons, by the aid of a pack-saddle; conditions required of pack-saddle should be light and simple, capable of carrying two boxes of ammunition weighing 100 pounds each (ammunition boxes, model 1906).

Questions:

1. Could such a pack-saddle be constructed?
2. Would it be thoroughly practical?
3. What would be the approximate cost?

Answers:

1. Could such a pack-saddle be constructed? The ordinary cross-tree or saw-buck saddle will come nearer filling such a want, much better than any other improvised method; a few retaining straps may be employed to adjust the boxes to the forks of the saddle, and a load or cargo cincha employed to hold the boxes on the mule.

2. Would it be thoroughly practical? No, for the reasons herein stated: Any pack-saddle that will not conserve the strength of the mule, by suitable provision to keep the animal's body sound, cannot be considered as thoroughly practical.

The cross-tree or saw-buck can be used, however, as a makeshift in emergencies, in isolated conditions; further, the employment of draft-mules, for such purposes, requires that *each* mule

must necessarily be led by the ordinary untrained man; and in rough mountainous country, crossing streams, etc., quickly would wear out the endurance of the unit by being compelled to lead the animal on foot.

3. What would be the approximate cost? About seven dollars each.

Remarks.—If the question of ammunition supply for infantry as an organization, either as a regiment or a division, over rough and mountainous country, be considered, certainly a thoroughly equipped and organized pack-train service will meet this want much better than any make-shift in time of peace or war. No general will invite disaster by a make-shift as a reliance for ammunition supply in time of war.

In time of war it is expected that wagon transportation will furnish adequate ammunition to an army, to as near the firing-line as safety and conditions of country demand; in other words, establishing an ammunition supply-depot. From this depot pack-train service should be employed for rapid and quick delivery of ammunition at designated points on the firing-line; pack-mules will not stampede in the zone of fire, *i. e.*, from the sound and rapid discharge of firearms or large cannon, etc., which is sure to occur with draft-mules under similar conditions.

The pack-mule is trained to follow the bell-horse and will not stampede under any condition; the draft-mule is not so trained and will jack-knife (turn quickly) a wagon and break off a wagon-tongue from many causes that are sure to happen near the zone of fire.

What is urgently needed is a wooden ammunition-box, enclosing the metallic case that can be quickly opened and deliver the case instantly, without the necessity of taking the wooden boxes off the pack-mule on arrival at the firing-line, or point of delivery. Two such boxes (wooden, old style) were designed by me and are now at the Staff College, Fort Leavenworth, Kans., for trial."

In regard to Mr. Daly's suggestion that pack-mules be used for the ammunition supply, it is not practical to use them with the battalions on account of the road space they take. For continuous work in mountainous country, Mr. Daly's suggestion should most certainly be adopted. We must be prepared to pack the draft-mules under the usual conditions. If we are caught without pack-saddles, the bandoliers can be fastened to the

mule's back and harness, and progress made somehow—a sore back, as a result, does not matter.

If a battalion is 500 strong, the weight of 120 rounds per man in boxes is 2475 pounds per wagon for two wagons; adding to this the driver, his equipment and three days' forage, the load becomes dangerously near the point where the wagon cannot accompany infantry. This certainly will not allow carrying intrenching tools on the battalion ammunition-wagon (see page 119, F. S. R.), unless the battalion is reduced in numbers.

Sometime it will surely happen that the ammunition-wagons will lag behind. In the Russo-Turkish War, "In the action at Lovtsha, the Third Rifle Brigade fired only in pursuit, but for all that, the officer commanding said afterward that the ammunition was running short. The S. A. A. carts got left behind during the advance, and no arrangements were made for bringing up the ammunition for them. * * * In the Kasan Regiment (Sixty-fourth), which used less ammunition than any other, the cartridges ran out just as the Turks began their successful and decisive counter-stroke." (Balck's "Modern European Tactics," Vol. I, p. 369.) We must learn from this that the ammunition-wagons must never be left behind. But when the roads and the loading are too much, what is to be done? Energetic action is necessary. Depending on the distance from the action, the packs of the men might be stacked and the ammunition issued. Some of the ammunition might be unloaded and left under guard. The bandoliers might be removed from the boxes and the boxes thrown away. The packing-boxes weigh 21½ pounds each when empty, or 530 pounds to the wagon. Such removal of the boxes would materially reduce the load. In regard to this latter, the Ordnance Department states, under date of January 10, 1908:

"This Department is not in a position to state how the model of 1906 ammunition would be affected by transportation in battalion ammunition-wagons without packing-boxes, as no experiment to determine this point has been made. It is thought, however, that the rough jolting to which the ammunition would be subjected would possibly loosen the bullets in the cartridge cases, and possibly deform the cartridge cases themselves. If such transportation were to be used, it is thought that the bottoms of the wagons should be padded and that a canvas cover for the wagon should be provided in order to keep the ammunition as dry as possible."

REGULATION OF SUPPLY.

The regulations of foreign armies can be found conveniently in Captain Balck's "Modern European Tactics," Vol. I, p. 373 (1898), and brought down to date by application to our military information sources. The regulations are detailed and presuppose an army prepared to take the field with the organization it has in time of peace. The French regulations for ammunition supply for artillery and infantry in the field cover some twenty-two typewritten legal cap-pages. Even if we had such comprehensive regulations they would not be carried out, probably, at first, by the untrained men that must be called in to supply our armies. We will have to depend on the good sense of the men concerned to evolve a plan which is best under the circumstances. One matter is certain, however, the chief of communications of an army should not owe his allegiance to any one department of supply. He must be able to decide, without prejudice, whether shoes, rations, ammunition, or whatever shall be sent first to the front. The regulations to govern a division can be made simple and binding, however, and must be a part of preliminary instruction.

Commenting on the regulations of armies, Balck draws certain conclusions which may be summarized as follows:

Ammunition must not be distributed too soon to the soldier, as he cannot march so well with the extra weight.

After refilling S. A. A. carts, follow combined by battalions not following their individual companies.

When there is a prospect that certain units will have to expend an abnormal amount of ammunition, the commanding general should attach to them some of the ammunition-carts belonging to units in reserve.

On arriving within decisive ranges (660 yards) of the enemy, the troops should be in possession of an ample supply. It is rarely possible to send men back for ammunition because of the enemy's fire. The supply of ammunition must proceed, on principle, from rear toward the front.

It is not possible to take ammunition from the dead and wounded, except when the line is motionless. In an attack, such attempts would encourage men to hang behind.

It is not advisable that ammunition be brought up by single men, but better by parties at very wide intervals.

It is not practicable to signal to the rear for ammunition;

commanding officers must watch the action and send forward fresh ammunition to the firing-line before it comes to decisive ranges.

A review of foreign regulations finds that they do not agree in all points, not even that the supply should proceed from rear toward the front. It would seem, however, with our few and poor roads, that when our battalion-wagons are emptied they should not be sent to the rear to refill. The movement on the roads must be forward.

The necessity for having officers who give their entire time to ammunition supply on the battle-field cannot be disputed. Our regulations must provide for that.

Having provided the ammunition, we have yet to inquire: "How are we to provide the skirmishing-line with sufficient ammunition to enable them to maintain a fire-fight of some hours' duration?" * * * For the sake of mobility, we want to lighten the soldier as much as possible. Pack-animals and carts cannot be taken under an effective fire, and human carriers cannot be, nowadays, expected to go backward and forward, over a fire-swept ground, with supplies of ammunition for the skirmishing-line. Consequently, one or more of the following three methods must be adopted:

(1) To give the soldier, before the fight begins, all the ammunition he is likely to require, say 300 rounds. This would be somewhat heavy for him to carry at first on his person, but it will gradually lighten as the ammunition becomes expended.

(2) To make all reinforcements, bring up into the skirmishing-line extra supplies of ammunition, which should then be distributed.

(3) To actually relieve the exhausted skirmishing-line with fresh troops, who are fully supplied with ammunition.

Each of these methods has its advantages and disadvantages. Thus, it may be doubtful, in some cases, whether, under severe fire, the second and third methods could be relied on, except in the dusk or after nightfall, or when the features of the ground are favorable. * * * There can be no doubt but that every man should go into action with all the ammunition that he can conveniently carry, the contents of the ammunition carts—battalion, brigade and divisional—being opportunely issued for this purpose. If every soldier carries 100 rounds on his person, and has another 100 rounds carried for him in the battalion

ammunition-carts, then the companies told off for the skirmishing-line can be supplied with from 250 to 300 rounds per man to start with; the companies kept in reserve being supplied, if necessary, from the leading line of ammunition reserves or columns. Of course, the ammunition of the killed and wounded should always be collected and distributed to the nearest men." (Mayne's "The Infantry Weapon and Its Use in War," p. 156.)

Major Kuhn says, in his printed report, p. 219: "The Japanese (at Chaohuatun) took their first reserve of infantry ammunition with them on pack-ponies into the stream bed. From the stream bed ammunition was carried to the firing-line by the soldiers carrying slings on their shoulders, and advancing in skirmish order."

Major Morrison, in his printed report, says, p. 78: "I was unable to find any case in which additional ammunition had been supplied to the firing-line after the attack was well on."

Captain Reichmann, speaking of the Russian Regulations, in his printed report, p. 260, says: "When ammunition is required at the front, the officer sends two or three men to the reserve, and if the ammunition-carts are near the reserve they get the ammunition direct from the carts; otherwise the reserve at once turns over half of their ammunition and furnishes enough additional men to carry it, replenishing their own ammunition from the carts. The men carry loose ammunition in sacks, bashlicks, or the skirts of their overcoats, or in any other handy way, and the men who go forward with the ammunition report to the nearest officer there and remain in the firing-line."

"When troops are short of ammunition they may demand it from any ammunition-carts, no matter whose, and it will be furnished. No requisition or receipts are required. The non-commissioned officer in charge of the cart simply notes the number of rounds furnished and to what organization. Immediately after the action the first care is to ascertain the amount of ammunition on hand."

Captain Reichmann, however, never saw the regulations for supplying the troops in attack carried out.

Several methods of supplying the actual firing-line, besides sending it up with reinforcements, have been suggested:

1. By groups of ammunition carriers.
2. By a chain of carriers, to take cover and throw ammunition from one to the other till it reaches the line. Similarly, carriers equipped with rope about 100 feet long, with return

cord and lead attached—ammunition to be drawn, instead of being thrown.

3. Sacrificing horses or mules by sending them forward with ammunition at a rapid gait.

4. Strip of all equipment, except rifles, about 5 per cent. of each company, and load them with all the ammunition they can carry at the start.

5. Use of dogs as pack-animals or to draw carts, the dogs to be sent to find their company when it needs ammunition.

6. Armored wheelbarrows or armored carriers.

The resupply of the firing-line is unsolved, but its importance demands much preliminary thought, and when the necessity arises, ingenuity and action must overcome circumstances.

The great difficulty of supplying the firing-line is seen in the Guard Brigade at Modder River, where, in two hours, the men had fired away almost the greater part of the 150 rounds of ammunition in their pouches. On the average, there were in the evening only five cartridges for each rifle still on hand; a fresh supply of ammunition was not to be thought of, since individual men, who raised up, immediately drew on themselves the fire of a great number of rifles. The ammunition mules ran away (were stampeded) immediately at the beginning of the battle; likewise, the Kaffirs, with the cartridge-wagons, had put themselves in a safe place. This action was a *rencontre*, and one-half of the killed and those recommended for medals were ammunition-carriers.

It is practically a certainty that the only way to be sure the firing-line will not exhaust its ammunition is to give its members, at the start, enough to last till dark, which means from 200 to 350 rounds per man. We know our men will never carry their packs into action. Major Morrison and Major Kuhn say that the Japanese usually left their packs behind. This decrease of load gives the opportunity to carry the extra bandoliers.

REGULATIONS OF THE UNITED STATES ARMY.

Our present regulations in the Field Service Regulations need some changes, and should be made more definite.

The writer suggests that the following be included in "The Small Arms Ammunition Regulations for a Division."

1. The small arms ammunition of a division consists of two echelons.

The FIRST ECHELON comprises :

Rifle ammunition :

Infantry and Engineers.

For each man :

90 rounds in his belt, replaced from the battalion-wagons.

120 rounds in bandoliers and boxes, carried by two ammunition-wagons, accompanying each battalion; replaced from the division ammunition column.

Cavalry.

For each man :

80 rounds in his belt, replaced from the battalion-wagons of the infantry.

Revolver ammunition :

24 rounds per cavalryman, carried in his belt; replaced from infantry ammunition-wagons. A battalion-wagon of the first battalion of each infantry regiment to carry one box of revolver ammunition.

20 rounds per artilleryman, carried on the man; replaced from the artillery sections of the ammunition.

Machine-gun ammunition :

6250 rounds per gun, carried on the mules; replaced from the infantry ammunition-wagons.

The SECOND ECHELON comprises :

The division ammunition column :

Small arms ammunition sections :

Rifle ammunition :

120 rounds per man of infantry and engineers.

Revolver ammunition :

24 rounds per cavalryman.

Artillery ammunition sections :

Revolver ammunition :

10 rounds per artilleryman.

The contents of the division ammunition column to be replaced from army and ordnance trains, or depots.

2. The company commander is responsible for the maintenance of the supply in the belts of the men, and for the prevention of waste and loss. Three pockets (thirty rounds) of the belt will be designated and distinguished for reserve ammunition. The soldier will not fire his reserve ammunition without an order to do so from an officer. When all his ammunition is exhausted, except his reserve, he will report that fact to his next superior, who will inform the company commander.

INFANTRY AND ENGINEERS.

3. The battalion ammunition-wagons are a part of the battalion and will habitually accompany it. The battalion commander is responsible for the maintenance of the supply in the wagons.

4. Before entering an action the battalion commander will issue all the ammunition in the battalion-wagons, unless otherwise directed.

5. Troops to bear the heaviest fighting should be issued at least 270 pounds. To supply this extra ammunition, regimental and superior commanders will order the wagons of troops to form the reserve to report for that purpose.

BRIGADE RENDEZVOUS.

6. When all the ammunition has been issued from the battalion-wagons, or when the battalion-wagons can no longer follow their battalions onto the battle-field, they will be assembled by regiment, and with two mounted orderlies will be sent to report at the brigade rendezvous.

7. A mounted officer of each brigade will be under continuous detail to have charge of the brigade ammunition supply in action. Unless otherwise directed, when the brigade is engaged he will collect the battalion ammunition-wagons in a brigade rendezvous (at the brigade reserve, unless such position is unfavorable). He will report the location of the rendezvous to each regimental commander. He will determine how many rounds were issued to the men in each battalion. He will keep himself informed of the progress of the action, what need the firing-line has of ammunition, and will devise means to supply it.

He will report the location of the brigade rendezvous to the chief ordnance officer of the division, and to the officer commanding the small arms sections of the division ammunition column, sending to both a request for a replenishment of the brigade supply, stating the amount on hand. He will issue ammunition to any organization of his brigade on demand. Requests from neighboring brigades will be referred to the brigade commander. Wagons will not be sent to the rear to replenish, unless so ordered by the chief ordnance officer.

EMERGENCY.

8. In emergency, any officer or soldier in charge of ammunition will issue it to any troops, when demanded by an officer.

THE DIVISION AMMUNITION COLUMN.

9. The chief ordnance officer has command of the ammunition column. He may also command all battalion ammunition-wagons when the division is engaged. A mounted officer will be detailed to have command of the infantry sections of the ammunition column, and another to have command of the artillery sections.

10. During an engagement, unless otherwise directed, the officer in command of the small arms ammunition sections will move his sections to a convenient point in rear of his division, sending wagons forward to brigade rendezvous as may be necessary. He will inform himself of the progress of the action, the location of the brigade rendezvous and the ammunition available at those points. He will notify the chief ordnance officer of his location.

11. The chief ordnance officer should inform the officer commanding the small arms sections of the best location for the sections, and also the needs of the several brigades.

12. Brigade rendezvous will be indicated by green and white flags striped diagonally, and green lanterns, known as ammunition flags and lanterns.

CAVALRY.

13. On the march, the belts of the divisional cavalry and the boxes of its machine-gun platoon will be replenished from the battalion-wagons of the leading brigade. In action, from the nearest brigade or other rendezvous of battalion-wagons; application to be made through the commanding officer.

INFANTRY MACHINE GUNS.

14. On the march, the ammunition-boxes will be replenished from the battalion-wagon. Except when ammunition is exceptionally plentiful, ammunition will not be issued from brigade rendezvous during an action, to machine-gun platoons, except on the demand of their regimental commander.

ACCOUNTING.

15. Every ammunition-wagon shall have blank receipts and a book with a waterproof case, in which the driver shall keep a running account of all ammunition received and issued, obtaining receipts when practicable. Ammunition issued to battalion-wagons will be dropped from returns on receipts or certified statements of the necessity of issue without receipt. The chief ordnance officer of the division is accountable for the ammunition in the ammunition column.

BATTALION-WAGONS.

16. The escort-wagon used as a battalion ammunition-wagon will be equipped with four ammunition pack-saddles, low wagon bows and khaki-colored cover. One wagon in each battalion will be equipped with an ammunition flag and an ammunition lantern.

FIRING-LINE.

17. Reinforcements sent the firing-line must always be issued extra ammunition for the reinforced line. Every opportunity must be used to collect the ammunition of the dead and wounded when the firing-line halts. Men will never be left behind for this purpose. At night, commanders will be certain that all advanced troops are resupplied with sufficient ammunition for the following day.

THE DEFENSIVE.

18. Ammunition in boxes will be distributed in prepared positions.

SERVICE OF SECURITY.

19. Troops detailed to provide for security will be issued extra ammunition. When practicable, on the march, the battalions of the leading regiment of the advance guard will issue one bandolier per man, except the battalion in advance, which will issue two bandoliers. This will empty four ammunition wagons, which will be used to carry the blanket rolls of the leading battalion.

AFTER AN ENGAGEMENT—READJUSTMENT.

20. As soon as the division is no longer engaged, all commanders and officers in charge of ammunition will adjust at once, the ammunition to conform with the table at the head of these regulations, by issue or by turning in. Under the direction of the officers in charge of ammunition, the ammunition of the dead and wounded and that dropped on the battle-field will be collected.

DETACHMENTS.

21. Detachments will conform to the above in principle.

The problem of ammunition supply will always remain unsolved in exactness. It can only be solved on the ground, and then never to everybody's satisfaction. But that fact will not excuse the United States Army from being prepared to carry forward those measures which will most certainly bring about the correct solution on the battle-field. The necessary regulations, equipment and training must soon be provided.

NOTE.—Among other books and our own regulations, the following should be consulted:

"Army War College Study, No. 22, entitled, Ammunition Supply for Infantry," by Maj. John F. Morrison, U. S. A.

"Infantry Fire Tactics," by Capt. C. B. Mayne, English Army.

"The Infantry Weapon and Its Use in War," also by Mayne.

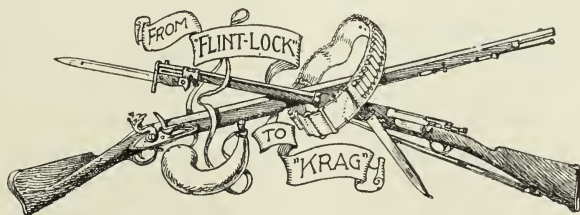
"Modern European Tactics," by Captain Balck, German Army.

"The Regulations of Foreign Armies."

"The Reports of Our Attaches in Manchuria."

Two translations from the French filed in the Military Information Division, entitled, "Directions for the Supply of Ammunition in the Field," and "The Supply of Ammunition to the Infantry on the Firing Line."

"Proposed Revision of the Field Service Regulations," by Captain Hunt, Eighteenth Infantry and Committee of Staff College, 1907.



LOOSE-LEAF SYSTEM FOR RECORD OF CORRESPONDENCE.

BY CAPTAIN W. W. RUSSELL, ADJUTANT FIRST INFANTRY,
VERMONT NATIONAL GUARD.



LOOSE-LEAF record books are becoming used more and more every year for military, as well as other purposes, both in the army and National Guard. While this is especially true as respects property records, company descriptive and clothing books, etc., the use of the plan as applied to correspondence records has not come to the knowledge of the writer, and he is, therefore, impelled to outline a method for work of this character.

In considering the subject of correspondence, it seems reasonable that a letter-press or carbon copy be accepted as sufficient record of any letter written in the office. Such copy is, in fact, recognized as a substitute for the "letters sent" book in the pamphlet entitled "Instructions for Conducting Correspondence and Keeping the Records by the Organized Militia and Volunteer Forces" issued by the War Department in 1904.

Similarly, if "letters received" which do not require forwarding to higher authority, or return to the writer, are so filed and indexed as to be immediately available for reference, no book record is believed to be necessary. Examples of this class are resignations, applications for leaves of absence and furloughs, and similar requests granted in special orders.

This leaves for record in the "letters received" book (correspondence book, card record, or other substitute) only the letters which *pass through* the office.

The scheme considered here for recording communications of the last-named class is simply a binder, with capacity for a reasonable number of sheets of bond paper, 8" x 8" in size, each sheet providing the record of one communication, the sheets being just the size of the first and second folds of an official letter, with the addition of an inch margin for binding.

In writing the brief and endorsement on a letter, a carbon

sheet is placed between the letter and the record sheet, and a copy of all essential facts thus made on the record sheet with practically no additional labor. A small space is provided in the upper right-hand corner for the file number, thus facilitating reference to the sheets, which are numerically arranged in the binder.

It will be seen that the method is thus specially adapted for offices where a good deal of briefing has to be done. The saving of labor is not so great for endorsements after the first, where the brief is already on the letter. In this case the left half of the record sheet would be filled out as an original, either with pen or typewriter, the action being noted similarly in the right half. Carbon would be used only for copy of the endorsement, when of sufficient length to render retention of a complete copy desirable. The advantage of the loose-leaf system over the bound book is equally noticeable in this case, however.

Examples of the use of the record sheet, both when the endorsement is directly copied and when a summary of it and of subsequent notations are used, are shown herewith.

In view of the recent adoption in the army of the "Correspondence Book" as a substitute for the two books previously used, it is probably true that the present is not a propitious time to secure the adoption of any change in existing regulations. But conditions in the militia sometimes render desirable, or even necessary, the employment of abridged methods of handling the details of military administration, by reason of the lack of available time at the disposal of those who have the work to do. It may be, therefore, that the plan outlined is worthy of consideration by adjutants and others who have some volume of military correspondence to attend to, in addition to their duties in civil life.

It is believed that this system will give better results, also, than the card system, on account of the greater ease of making the records, and the more portable character of the records when made.

(Record—Co. G, 2d Inf., N. C. N. G.)

ACTION, OR COPY OF ENDORSEMENT.

(1st Endorsement)

Co. G, Second Infantry,
N. C. N. G.,

Washington, Jan. 22, 1904.

Respectfully forwarded to
the Adjutant, Second In-
fantry, N. C. N. G., Wash-
ington, N. C., recommending
transfer as requested.

(Sgd.) JOHN W. DOE,
Capt. 2d. Inf., N. C. N. G.,
Com'd'g Co. G.

PLACE AND DATE.

Charlotte, N. C.,
January 20, 1904.

NAME AND RANK OF WRITER.

WASHINGTON, HENRY T.,
Corp'l Co. G, Second Infantry,
North Carolina Nat'l Guard.

SUBJECT.

Requests, for reasons stated, transfer
to one of the companies of the First In-
fantry, located at Charlotte.

FILE NO.

5

RECEIVED

January 21, 1904.

NOTE.—For additional remarks on this subject, see "Com-
ment and Criticism," this number of the JOURNAL.

A STAFF-OFFICER'S JOURNAL OF THE VICKSBURG CAMPAIGN, APRIL 30 TO JULY 4, 1863.*

BY LIEUT.-COL. J. H. WILSON, INSPECTOR-GENERAL, U. S. V.†

6 P. M.—General Sherman begins crossing his army corps over the pontoon bridge at Bridgeport.

9 P. M.—Went to Sherman's headquarters—two brigades of Blair's were already over the river and thrown forward on each side of the road.

May 18th, 6 A. M.—Gen. A. J. Smith reported the bridge at the railroad ferry complete—troops ordered to begin crossing.

8.30 A. M.—Went to Ranson's and Hickenlooper's Bridges—Ranson's will be done in an hour and a half; at Hickenlooper's the cavalry were already crossing.

9.20.—Crossed over Smith's Bridge. Grant's headquarters at Evans's plantation, three miles from the bridge.

10 A. M.—John Wesley Jackson, a mulatto hack-driver from Vicksburg, this morning reports that all the troops of the Rebels have been called into Vicksburg—that there are 60,000 of them—that they took out all their artillery to meet us except five ten-inch columbiads pointing against the river, and brought back only three field-pieces; thinks they will surrender after a show of fight.

The roads are all pretty good—one by Chickasaw Bayou through bottom, rather bad for pulling, defended by rifle-pits all along the road from six miles out.

Ridge Road—hilly—no fortifications till you get within four miles of town—junction of Snyder's Bluff Road and Vicksburg and Jackson Roads, 1½ miles beyond Mt. Alban.

Cross-road from Mt. Alban to Baldwin's Ferry Road—three miles. Leads by Red Bone Church—and thence into southeast corner of town. No rifle-trench on this road till you get in sight of town.

Only one line of rifle-pits around town, running through field on top of a ridge, open ground in front.

Mrs. William Lun has made a Union flag.

Thinks they have evacuated Snyder's Bluff and gone to Hayne's, but hear no talk of any fighting except about the city.

11.20.—The advance of A. J. Smith's division passed Evans's where Osterhaus, who just passed the river, had been waiting for Smith to take the advance.

1 P. M.—Arrived at Mt. Alban. No sign of Sherman—bridge over the railroad here burned.

*Concluded from July Number.

†Now Brigadier-General, U. S. A. (retired).

MAP OF THE VICKSBURG CAMPAIGN

Scale: 10 miles to one inch.



1.30.—Report received that Sherman is ahead, having come into the Jackson Road at three miles from Vicksburg.

2.30.—Found Sherman halted two miles from Vicksburg, with skirmishers out.

3.20.—Firing of skirmishers becoming active.

3.45.—Sherman fired the first gun, a six-pounder.

4.50.—Steele opens his artillery on the extreme right.

5.30.—Steele actively skirmishing.

General Sherman captured to-day the following dispatch:

Vicksburg, May 17, 1863.

MAJOR W. A. ROVER,

Commanding Cavalry.

The lieutenant-general commanding directs that you come to this place as soon as possible, keeping your pickets out in front of your moving columns, as he is unable to direct you what road to take to avoid the enemy, but thinks that your best route will be by Snyder's Mills.

Very respectfully,

I. C. TAYLOR, A. D. C.

General Sherman also captured a private letter dated May 17th, of which the following is the principal portion:

Great excitement here. Federals expected within sight of town to-day. General Lee and General Baldwin after retreating yesterday burned Big Black Bridge. Many wounded on both sides. Loring (Maj.-Gen'l) and General Buford's commands have not been heard from. Captain Cowan and about twenty men escaped from my battery. General Tilghman, about two minutes before he died, said he had never seen so good a battery and that it was the best in the field. Our guns are lost to us, but the enemy did not get them; they were dismounted and rolled and knocked up into a ravine. Come in if the Federals capture Vicksburg. We are pressing provisions and sending for corn into the country. Keep quiet about your provisions.

May 19th, 8 A. M.—General Grant moved from Cook's plantation where he had passed the night.

8.40.—Arrived at McPherson's front, skirmishing lightly on the right. Steele is in possession of the enemy's forts between Chickasaw Bayou and the city. Colonel Johnson returned from a cavalry expedition to Brownsville, reports the enemy there about 6000 under Walker, the remains of the force McPherson defeated at Jackson. Their design was to fall on our flank in case we had been defeated or checked at the Big Black. Joe Johnston went in to Vicksburg with about 500 cavalry on the 17th, crossing at ——— Ferry.

9.00.—Volleys of the musketry on the right of Steele.

10.00.—Steele holds the enemy's upper water-batteries on the Mississippi—we are signalling to Young's Point.

11.05.—The order is issued for a general bombardment at half past one and a general assault on the enemy's lines at 2 o'clock P. M.

2.32.—Steele's men moving up the hillside to charge the enemy's works on the extreme right.

2.34.—Steele has his line extended in front of their works—musketry incessant.

3.20.—The enemy begins to fire on Steele from a battery close to the water, having turned the gun around for that purpose.

5.00.—Steele has silenced the water battery and another one of three guns on the hill beyond by the fire of his sharp-shooters. The enemy still holds out obstinately, his numbers are not over 12,000 or 15,000, but his men are encouraged by the hope of re-enforcements.

7.30.—A heavy firing is heard in front of the city, apparently from gun-boat.

12 M.—The gun-boats fire on the town.

May 20th, 3.30 A. M.—Sherman's guns open.

7.30.—Went to the left. Found that three thirty-pounder Parrotts had been advantageously placed during the night to bear upon the enemy's principal fort. Firing active and effectual.

A general rumor prevails that Joe Johnston is coming in our rear with re-enforcements for the Rebels.

General Dwight left to return to General Banks to bring up his forces to Warrenton.

A letter from Admiral Porter to General Grant announces the occupation of Hayne's Bluff by General Lauman and of Warrenton by General McArthur.

6 P. M.—A supply-train arrives from Chickasaw Bayou.

May 21st, 6 A. M.—Colonel Hillyer from Young's Point reports McArthur with his troops at Chickasaw Bayou. They are ordered to Warrenton.

6 P. M.—An assault along the whole line is ordered for 10 o'clock to-morrow morning. The troops are to enter the town by all the roads in columns of sections, with skirmishers thrown out to attract attention.

May 22d, 10 A. M.—Went to General McClernand's command. A heavy cannonade was progressing. The assaulting columns began to move at the appointed hour and at twenty-one minutes past 10 the bugles sounded for the assault.

2 P. M.—The assault has failed, except that it is reported that McClernand has secured a position within the rebel entrenchments. Quimby is ordered to re-enforce him. Both McPherson and Sherman have failed to carry any of the works before them.

General Lauman last evening took two prisoners who said that the troops in Vicksburg were extremely demoralized, but were holding out in the expectation of re-enforcements from Joe Johnston, who is beyond the Big Black with 8000 or 10,000 men. Jeff Davis has telegraphed to General Pemberton to hold out fifteen days and he will bring a hundred thousand men to his relief, even if it should be necessary for the purpose to evacuate Tennessee altogether. Pemberton is sick and not in

active command, his place being filled by Gen. S. D. Lee of South Carolina.

12 M.—With considerable punctuality the troops were formed in columns of assault at the appointed hour, 10 o'clock this morning, and moved out of cover with promptness, but were compelled to fall back by the heavy musketry-fire of the enemy. Neither in Sherman's nor McPherson's front were the troops carried into the enemy's works, though Sherman organized a forlorn hope for the purpose. The cannonade before the assault was very heavy and the line of skirmishers maintained their advanced position.

6 P. M.—At about 2 o'clock this afternoon, General Grant received the following dispatch from General McClernand:

Headquarters, Thirteenth Army Corps,
In the Field, near Vicksburg, Miss.,
May 22, 1863.

GENERAL: We have gained the enemy's entrenchments at several points but are brought to a stand.

I have sent word to McArthur to reinforce me if he can.

Would it not be best to concentrate the whole or a part of his command on this point?

JOHN A. MCCLERNAND,
Maj-General, Comd'g.

MAJ.-GENERAL U. S. GRANT:

P. S.—I have received your dispatch. My troops are all engaged and I cannot withdraw any to re-enforce others.

McC.

The following dispatch was received at 4 o'clock:

Headquarters, Thirteenth Army Corps,
May 22, 3.15 P. M.

GENERAL:

I have received your dispatch in regard to General Quimby's division and General McArthur's division. As soon as they arrive I will press the enemy with all possible speed and doubt not that I will force my way through. I have lost no ground. My men are in two of the enemy's forts, but they are commanded by rifle-pits in the rear. Several prisoners have been taken, who intimate that the rear is strong. At this moment I am hard pressed.

JOHN A. MCCLERNAND,
Maj-Gen'l Comd'g.

Maj.-Gen'l U. S. Grant,
Dep't of Tennessee.

In consequence of this dispatch the assault was renewed in Sherman's and McPherson's front, without success and with the loss of about 1000, killed and wounded.

May 23d.—The troops to-day rested from the excessive fatigue of yesterday. There was little firing. Preparations for siege-works were

begun. In the evening Admiral Porter wrote that the gun-boats had destroyed the Confederate Navy Yard at Yazoo City with two powerful rams on the stocks. He also said that to-morrow he would have ten mortar boats in position to fire upon the city.

May 24th.—Joseph Hale of Washington County, Tenn., a conscript in the Rebel Army, escaped from Vicksburg to our lines last evening after dark. Can't tell how many men there are in Vicksburg, but doesn't think there are over 50,000 including sick and wounded. Doesn't know how many are in the forts and rifle-pits on the south and east side of the city, hasn't been there, but the forts and rifle-pits on the north are full of men. Was first stationed on the bluff in front of General Steele on Monday night, there were no rifle-pits there then, and on Tuesday the forces lay behind a hill, but on Tuesday night they dug rifle-pits and raised breastworks for artillery. Then they had four guns on that side, but on Friday one of them, a big siege-gun, brought up from the river, was disabled by a shot that broke the carriage and since then they have not been able to fire it. Our sharp-shooters keep them out of the breastworks. With regard to rations, Colonel Crawford said on Wednesday that he thought that if the citizens within the lines would throw in what they had there would be enough to last thirty days, and then they would have to stack arms and surrender unless Bragg came in with an army in our rear. The men get every day a piece of corn-bread as big as your hand and a good piece of fresh beef. There is no bacon in the town, the boys only drew one-quarter of a pound a day before the fight at the Big Black, and after that fight they drove in all the animals in the country west of that river. Colonel Crawford said he would know to-day whether Bragg was really in our rear, and if he wasn't, they were gone up. Never heard of Joe Johnston. On Tuesday orders were issued not to shoot unless the enemy was close at hand. Ammunition is scarce, both for muskets and cannon. Yesterday morning some army-rifles were issued. The mortars have done a great deal of damage, they have killed a heap of stock and many people. Colonel Crawford said that if the Yankees got into the works in front of Sherman and McPherson, the town was gone up. Doesn't know what guns are in the fort by the water, but some of them have been taken out and carried up the hill. Colonel Crawford said that on Thursday afternoon, the sharp-shooters killed every man in the works in front of McPherson except one. The citizens in the town live on their own supplies and don't get rations from the commissaries. Pemberton is the commander. Generals Stevenson, Lee and Smith are in the town. They expected we would starve them out. The men from East Tennessee all want to escape and wish they had let themselves be taken at the Big Black Bridge. Many of the men from Georgia and Alabama also want to get out.

May 28th, near Vicksburg.—Report that three divisions from Bragg's army were expected to join Johnston.

J. H. W.* Green, S. Douglas, quick, intelligent, formerly in Jack Hay's company of Texas scouts, joined Rebel service 14th of April, 1861; born and raised in Illinois. Recently belonged to Wall's Texas Legion, composed of three battalions of infantry, one of cavalry, four companies in the infantry battalion, six in cavalry.

Detached as a scout on the 24th of April, enrolled in a company of thirty-six, called "Cleveland scouts," but was attached to Pemberton's headquarters as an orderly.

Tilghman commanded Rebel forces at Champion's Hill. Pemberton remained in town sick.

First heard of "slight defeat," then "defeat and heavy loss," followed by order for all the troops to fall back to entrenchments.

Rebels sustained but slight damage the first day of the attack—those hurt were in the reserves and artillery.

On 22d was in the fort on north side of railroad—report came in about 9½ A. M. that from Yankee maneuvers there would be a general assault; everybody was ordered to the trenches.

Wall's Legion of 800 men, list eighty killed and wounded; says the three Georgia regiments of Walker's brigade, after firing one round, sat down behind the entrenchments and refused to fight. Three Tennessee regiments of reserve, General Lee's brigade, refused to go into the pits—positively refused to obey orders. Nothing done with the Tennessee men but thirty-six Georgians are in arrest. Men are very low-spirited, and don't think would stand much coercion.

Seventh Georgia, commanded by Colonel Thomas, was one of the three.

Heard General Reynolds say to General Lee, on the 23d, if Johnston didn't arrive in ten days he thought it would be the object of General Pemberton to mass his troops and endeavor to cut out.

Heard officers say they would then try to join Bragg and go out on the Yazoo City Road.

Lee seemed to think that this would be the policy.

Heard no officers say anything against Pemberton, but says the troops almost universally distrust him—heard Louisiana men say they would hang him if he undertook to surrender city.

The Texas Legion and Second Texas, commanded by Col. Sam Houston, Jr., say they will not attempt to cut out—for they are not certain of backing.

Rebel Army is in pretty good health, but good many sick and wounded in hospital. Four large hospitals. Baptist Church divided into stories. Heard General Lee tell Colonel Waul that they had about 18,000 effective men, and were strongest about the railroad and also had best troops there.

*Journal entries again in my hand.

Says up to yesterday noon, 109 women and children had been killed by mortar shells. This is the report of Dr. Randol to Colonel Waul.

These helpless people are of the poor class—most of the wealthy having either left the city or prepared underground shelters, dug in the sides of the cuts.

The troops are now drawing three-quarters of a pound of bread and three-quarters of a pound of fresh beef per man each day, with only salt enough to salt the meat—bread without. "At this rate I understood from General Pemberton he thought the rations would last about thirty days."

General Pemberton ordered me verbally to pass through your lines if possible and report to General Loring or General Johnston and give them a description of things at Vicksburg as far as I knew—say we could hold out about thirty days on rations—had plenty of cartridges, but were very scarce of caps. Tell them he (Pemberton) should expect them to be in the rear of General Grant in ten days at furthest, and to come at once. I was further ordered to report myself back with as much information as they would give me concerning their strength, expectations, etc.

Supposed I would find General Loring in southeast corner of Claiborne County, waiting for re-enforcements from Port Hudson, which I understood was to be stripped of all its garrison except men enough to man the guns.

Johnston was thought to be between Jackson and Big Black. General Pemberton thought Johnston's re-enforcements would come from Mobile; his present force is composed of Georgians, Alabamians and Tennesseans.

Thinks the soldiery and people regard Vicksburg as the vital point and therefore to be defended at sacrifice of everything else.

Gives following details:

1. General Pemberton in chief command.
2. General L. C. Stevenson, on right.
3. General Lee, S. D., near railroad.
4. General Reynolds's brigade, with Stevenson on right.
5. General Bowen, on left.
6. General Green, with Stevenson.
7. General Baldwin, in Bowen's division
8. General Herbert, on left.
9. M. L. Smith, on left.
10. General Forney.
11. Colonel Evans, chief commissary.

The main magazine is in a frame house on north side of railroad about one-half mile from the breastworks. Yankee artillery were throwing shot all around the magazine and thought someone must have told us where the ammunition was stored. Says they had a gun near the

magazine which drew the fire so near the spot they were compelled to change the position of the gun.

Thinks someone intended to point out the magazine because a large dead tree near by was fired on the 19th, the tree being in direct range. The soldiers were certain this had been arranged.

There are no rifle-pits perpendicular to the hills toward Warrenton, under the brow of the hill; rifle-pits run parallel with the river and only one line.

There are six prisoners now in Military Prison, Vicksburg jail, held as hostages for six men that General Butler didn't give an account of. They are named:

1. Charles R. Wells, Sergeant, Eighth Vermont Infantry, Company "G."
2. A. B. Odell, Company "C," Eighth Vermont, private.
3. Private H. C. Anderson, Company "G," Sixth Ohio.
4. W. B. Critchfield, Company "C," Thirteenth Vermont.
5. Private James Darby, Company "G," Sixth Illinois Cavalry.
6. Private W. G. Anderson, Company "G," Fourteenth Ohio Vol.

These men have been held six months—don't seem very uneasy.

Thomas Hardgraves, an Englishman, having served a term of enlistment in the Confederate service and legally discharged, enlisted in our service, was taken prisoner, identified, tried, and is now a prisoner and awaiting action of Confederate authorities.

An order issued to drive out horses and cattle yesterday and to-day.

Most of the troops are very much dissatisfied at short rations—think they would come out and give up now if they dared.

Every day the difference between men and officers is becoming greater.

Says there were thirteen guns disabled on Saturday; saw four that had been disabled the day before.

Saw one thirty-pounder Parrott on land side—two others moved up but not in position.

Rebels think the weakest part of their line is near the center and for one mile south of the railroad.

It is called one mile from the court-house to forts near railroad.

No forts or rifle-pits inside the main line.

Thinks the armistice on the 25th was asked for really so as to have an opportunity of burying the dead animals near their lines.

Heard officers say they thought we were fortifying front and rear to guard against forces in all directions.

General officers say they expect to make sortie in the event of our being attacked by Johnston—think the troops under Loring will come by the Yazoo.

Troops stay two days in the trenches, two-third being in trenches at a time.

James Rush, deserter, reports that the impression prevails among the troops that rations are giving out. Confirms above story—says, orders were given last Monday, 25th, for three days' prepared rations in haversacks—officers reported that the object was to move out and pursue the Yankees who were reported retreating. Men believed that an evacuation and skedaddle were intended.

Heard that Pemberton said to his officers, he was afraid General Grant would not renew the fight but attempt to starve them out. Troops distrust Pemberton. The line of works they are now defending is the only hope.

No interior line except a small citadel near court-house—all the troops are on land side of works—no infantry near the river. Great many houses in the center of the city destroyed by shells from gun-boats and mortars. A number of women and children have been killed—"better class" of people have retired to caves—the poor are flying about in consternation, in all directions—a great many Rebels killed at rifle-pits—two guns dismounted by gun-boats. Estimates force in town at 12,000 men.

May 29th.—Colonel Johnson reports by letter to General Blair, transmitted by the latter to headquarters, that he had been informed by a William Barkley that Johnston was at Canton with a large force. A. P. Hill at Jackson with others—the two together, 45,000 men—Hill had 6000, Johnston had 8000, Loring 3000 and 2000 stragglers arrived from Pemberton's force. Thought this information entitled to considerable consideration.

Blair thought the number exaggerated.

General Hurlbut from Memphis writes, three divisions of Bragg's army had been ordered south.

Work all around the lines confined to strengthening batteries digging rifle-pits, extending and widening parallels.

McPherson and Sherman furthest advanced.

May 30th.—Six persons apprehended this morning by Lauman, endeavoring to force their way into Vicksburg with caps. Following order found:

Jackson, Miss., May 27, 1863.

LIEUTENANT J. W. GILSON.

Sir: You will proceed to Vicksburg in charge of a detail of four men, with percussion caps. You will deliver them to General Pemberton as soon as possible. Should you find it necessary to have other horses than those you take with you, authority is given you to impress as many as you may require.

Very respectfully,

Your obedient servant,

GEORGE WHITEFIELD,

Major and Ass't Chief Qrm.

A cipher dispatch was also found, but not deciphered till later.

General Blair, commanding expedition, writes from Mechanicsburg, May 29th:

I found no enemy on my way here of any consequence. My advance came up with about 400 or 500 of the enemy at this place about 1.30 P. M. to-day.

They were driven back after slight resistance and fled beyond the Big Black, crossing at Kibby's Ferry. Colonel Johnson has scouted this country pretty thoroughly on both sides of the route and along the Big Black as far down as Cox's Ford, but finds only stragglers making their way to Canton, where Johnston is understood to be, organizing an army. I feel pretty well assured that no considerable force is on this side of the river. The route I passed over contained but little or no forage or provisions, but such as there was I destroyed or seized.

From a subsequent conversation with Colonel A. K. Johnson, General Blair thinks the informant of the colonel confused names, and that it was Johnston, not Hill, who had arrived at Jackson.

This view is confirmed by the cipher dispatch.

June 1st.—S. C. Wright, private, Company "H," Fifty-second Georgia, left Vicksburg yesterday, says they issue only one-quarter of a pound of beef and one-half of a pound of meal. Good deal of grumbling.

L. D. Wright, brother of above, confirms the statement of S. C. Wright—don't think they can hold out much longer than a week.

Sent for caps—had none—but thinks each man is supplied with at least forty.

Heard it said that one man reached town on Friday morning with caps.

Heard some officers say they could not hold out longer than three or four days—others said wouldn't yield at all.

A. Dennis—Tennessee—a Union man conscripted three weeks ago, gave himself up—thinks there is a good deal of discontentment among the men. Pemberton published an order to cheer them up. Says they are mixing peas and corn-meal.

Thomas Clifford, born in New York and raised in Iowa, river-man by profession, a private in First Louisiana heavy artillery, says they have moved a seven-inch Blakely gun to the land-battery near the railroad, and also the eighteen-pounder Parrott (known as Whistling Dick).

An eight-inch Howitzer near our extreme left at salient of works.

An order was read to us two or three nights ago to the effect that Johnston was at Canton with 30,000 men, Loring in Jackson with 10,000 men, Bragg had defeated Rosecrans and was coming to the assistance of Johnston, and Lee at Arlington Heights shelling Washington, by order of Pemberton.

One man arrived in Vicksburg on Saturday morning with 20,000 caps.

About 300 or 400 yards in rear of the works on the right, a new line begun; heard colonel, Fifty-seventh Georgia, say there was to be an inner line of entrenchments all along for a reserve.

About 18,000 men in the entrenchments.

General orders palisades constructed all around the lines.

Sergeant Pitchford, a British subject, confirms the above statements.

Says an order was published to contradict the rumor of an intention to surrender.

DANA, June 6th.—General Grant started to go to Satartia by way of the river. Two miles below that place met the gun-boats coming down and found that General Kimball had retreated from Mechanicsburg sending his knapsacks down by the transports.

June 7th.—Spent the day hunting for Kimball. Went to Oak Ridge Post Office, whither he had been ordered to retreat, but finding no signs of him, proceeded up the Benton Road till after crossing Bear Creek, when we took the road which leads in the direction of Mechanicsburg, went within about ten miles of that place, no signs of Kimball—crossing westward to the telegraph road came upon two secesh horsemen who fled at our approach, and learning that Kimball's troops had all got past on that road several hours before, returned to Hayne's Bluff the way we came. Kimball had arrived there several hours before us, having lost men by sunstroke on the march.

June 8th.—General Washburn arrived and was sent to take command of the forces at Hayne's Bluff. Lieutenant-Colonel Wilson also went there to lay out the fortifications.

From Milliken's Bend and Young's Point we have reports of a sharp fight with a body of some 1500 Rebels. The negro troops fought with great determination. About eighty were killed on each side.

June 25th.—R. L. Akers, Sixth Texas Cavalry, hospital steward, deserter, says that he was born and raised near New Albany, Ind., went to Texas in 1858 and has been in the Confederate Army since the war. Has a brother in the Twenty-third Indiana in Logan's division. His regiment is the advance of Johnston's army. Has been at Bolton for five days. No Rebel force south of the railroad. The mass of Johnston's army is between Canton, Brownsville and Bridgeport. Akers knows nothing of the divisions or their present position; knows only the position of his own brigade, Whitfield's. His officers understand that Johnston has in all 35,000 men. Whitfield's brigade came from Spring Hill, having been a part of Van Dörn's forces. Marched all the way, leaving about May 19th. Had a hard march, in crossing Bull Mountain in Alabama, the horses had no feed for fifty-five miles. Corn is plenty but not in any excess the other side of the Big Black. The troops are anxious to come over and fight us, want to be out of the suspense. Think we have 90,000 men, but expect Pemberton to entertain the most of them, so that the battle outside will be about even.

June 26th, 4.10 P. M.—McPherson sprung the mine under the salient of the fort in his front. Assault failed.

June 27th.—The enemy this morning sprung a mine under the head of Sherman's sap, on Loring's front. No assault.

The enemy exploded a mine in front of sap near the railroad—no harm done.

June 28th.—Deserters report that the town will be surrendered on the 4th of July.

June 30th.—Deserters report that rations of mule-meat are now issued to the garrison.

July 1st.—At half-past 1 P. M. a second mine was sprung by McPherson under one of the planks of the fort, whose salient he blew up on the 26th inst. Six Rebels were thrown into our lines by the explosion.

July 2d.—Other deserters say that the town will be surrendered after July 4th.

Alexander Ross, of Magnolia, Columbia County, Ark., a conscript in Tappan's brigade, deserted from the Rebels during the recent raid on Lake Providence. He is a lawyer by profession and was employed in the Quartermaster's Department. He reports that the people of Arkansas have secret societies of Union men all over the State, with passes and watchwords. Many collisions have occurred between members of these societies and the Confederate troops. One took place in Montgomery County, February 1st, resulting in dispersal of the citizens. In Clark County, February 22d, 180 Union men armed themselves and repulsed 200 Texas cavalry. Two weeks later they had a second engagement with a larger force, when the Unionists were compelled to retire and went to the hills. They joined the force under "Wild Bill" and went to the northern part of the State. In Hempstead County, the Texans were too much for the Unionists and captured and hung seventeen of them. In Lafayette County there is a lodge of 300 Union citizens. In Calhoun County, the cavalry and citizens had a fight April 1st, in which several were killed and wounded on both sides. The citizens were defeated and several were hung without trial. In Bradley County a fight occurred at an election where the parties were as Union and disunion. Several were killed. This was, however, rather an armed opposition to the execution of the conscript law. In Columbia County, 120 citizens assembled in the public square at Magnolia and openly declared themselves enemies to the Confederacy. At the time they supposed General Blunt was at hand with Federal forces. Several of the leaders were afterward arrested and hanged till nearly dead. One of them, Parson Butler was not expected to live. Many of Marmaduke's men are members of these societies. They are composed of unconditional Union men and include many of the most respectable citizens and many large slaveholders. In Tappan's brigade there are 200 men who are for the Union with the President's proclamation.

Troops in Arkansas and Louisiana all under the general command of Lieut.-Gen. Kirby Smith.

In Arkansas, under General Price, four brigades infantry, sixteen regiments, averaging 400 men each.....	6,400
Commanded by Generals Parsons, Fagan, Frost and McCrea, also one brigade of conscripts and Indians, under General Cable...	1,500
These were recently whipped in N. W. Arkansas by 600 Federals near the Indian nation.	
Cavalry under Marmaduke.....	1,500
Four batteries of four guns each, under Marmaduke, sixteen guns, men	200
In Louisiana, three brigades Texas troops, one brigade Arkansas troops, infantry.....	5,000
(Two of these Texas brigades under McCullough and Randall.)	
Arkansas brigade under Tappan; cavalry under General Parsons.	1,600
Artillery, four batteries of four guns each, sixteen guns, men, say.	200
A division at Alexandria under Gen. R. Taylor.....	4,000
Total	20,400

Marmaduke's cavalry are poorly mounted and armed with shot-guns. The field-artillery in Arkansas is good, but poorly manned. No heavy ordnance in the State.

The entire force in Louisiana except Taylor's division was concentrated in the recent march on Lake Providence, only 700 cavalry and six guns were left behind.

Powder is manufactured at Arkadelphia, Arkansas, and other ammunition at Camden on the Wachita. Arkadelphia is defended by 150 and Camden by fifty men.

July 4th, 9 A. M.—The following letter was received:

Headquarters, Vicksburg,
July 3, 1863.

MAJOR-GENERAL U. S. GRANT,
Commanding U. S. Forces, etc.

General: I have the honor to propose to you an armistice for hours with a view to arranging terms of capitulation of Vicksburg. To this end, if agreeable to you, I will appoint three commissioners to meet a like number to be named by yourself at such place and hour to-day as you may find convenient.

I make this proposition to save the further effusion of blood, which must otherwise be shed to a frightful extent, feeling myself fully able to maintain my position for a yet indefinite period.

This communication will be handed to you under flag of truce by Maj.-Gen. J. S. Bowan.

Very respectfully,
Your obedient servant,
J. C. PEMBERTON,
Lieutenant-General.

To this General Grant returned the following reply:

Headquarters, Dep't of the Tenn.,
In Field, near Vicksburg,
July 3, 1863.

LIEUTENANT-GENERAL J. C. PEMBERTON,

Commanding Confederate Forces, etc.

General: Your note of this date is just received, proposing an armistice of several hours for the purpose of arranging terms of capitulation through commissioners to be appointed, etc.

The useless effusion of blood you propose stopping by this course can be ended at any time you may choose by an unconditional surrender of the city and garrison. Men who have shown so much endurance and courage as those now in Vicksburg will always challenge the respect of an adversary, and I can assure you will be treated with all the respect due to prisoners of war.

I do not favor the proposition of appointing commissioners to arrange terms of capitulation, because I have no other terms than those indicated above.

I am, general,

Very respectfully,

Your obedient servant,

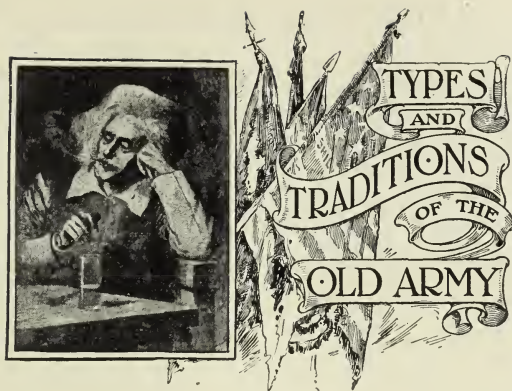
U. S. GRANT,

Maj.-Gen'l.





MEMORIAL TABLET—SPANISH-AMERICAN WAR.



THE ONE HUNDREDTH ANNIVERSARY OF THE ORGANIZATION OF THE SIXTH U. S. INFANTRY.*

CAPTAIN DWIGHT W. RYTHER, SIXTH INFANTRY.

THE Sixth Infantry came into existence in 1799; the officers were from North Carolina and Tennessee, and in 1800 orders were given that the regiment be recruited from North Carolina. But later in 1800 the regiment was disbanded, owing to the resumption of peaceful relations between France and the United States.

In 1808, however, when the necessity for more troops arose, the Sixth was reorganized, and so we celebrate to-day the 100th anniversary of the unbroken existence of our regiment.

In order to give some idea of the service of the regiment, it will be necessary, even at the risk of being somewhat tiresome, to mention some of the engagements in which it has taken part.

We find that in the War of 1812, the regiment was engaged with credit at Queenstown Heights, York, Fort George and the Siege of Plattsburg.

In 1815 the army was again reduced, and the Sixth was again reorganized by combining with several other regiments. In 1819 the Sixth marched from Plattsburg, N. Y., to Pittsburg, Pa., where it embarked on May 8th in small transport boats, propelled by oars and sails, finally reaching, in September, Council Bluffs, near the site of the present city of that name in Iowa. It had been intended to proceed, in the spring, to the mouth of the Yellowstone River, but Congress voted against it, and the temporary camp was made permanent by the erection of barracks and storehouses. Here, in the first post west of the Missouri River, the regiment remained seven years.

Another reorganization, and we find the Sixth commended for an expedition against the Arikari Indians; and in 1827 established at Jefferson Barracks, Mo. In 1829 four companies were detailed to escort traders over the route to Santa Fé, N. M.

*Address to Troops, Sixth Infantry, at Fort B. W. Harrison, Montana, April 12, 1908.

In 1832 the Sixth played an important part in the defeat of Black Hawk, which led to his surrender, and they were again commended.

In the Florida War, at the Battle of the Okeechobee, the Sixth was in the thickest of the fight, their losses being greater than those of any other troops engaged. One company had but four men uninjured. Col. Zachary Taylor, afterward colonel of the Sixth and later President of the United States, said in his report: "I am not sufficient master of words to express my admiration of the gallantry and steadiness of the officers and soldiers of the Sixth Infantry. It was their fortune to bear the brunt of the battle. The report of the killed and wounded, which accompanies this, is more conclusive evidence of their merits than anything I can say." During this war the regiment lost ten officers and 129 enlisted men.

The regiment, excepting companies G and I, which were left in the United States, distinguished itself in the war with Mexico. At Churubusco, Molino del Rey and Chapultepec, the Sixth was in the thickest of the fight and was again mentioned for excellent work. Ten officers were wounded (two mortally) and 163 men killed or wounded during this war. Lieut. Winfield Scott Hancock, Sixth Infantry, wrote thus to his brother:

"You ask me if I have been in battle? I answer, proudly, yes; besides being in several skirmishes on the road from Puebla to Vera Cruz, in all of which, I can truly say, I have endeavored to do my duty. It was my part to participate in the battles of San Antonio, Churubusco, Molino del Rey and the conquest of the City of Mexico. I only missed the fight of Chapultepec by being sick in my tent and off duty at the time. I shall always be sorry that I was absent. I was lying ill with chills and fever, directly under the fort, at the time the action began. I could not remain still under the firing; but, wrapping the blankets about me, I crept to the top of the roof of the nearest house, watched the fight, and had strength enough to cheer with the boys when the castle fell. The balls whizzed about me, but I kept my post, doing what I could; and when I learned that the colors I saw hoisted on the conquered walls were those of my own regiment, my heart beat quick at the glorious sight."

After returning to Jefferson Barracks in July, 1848, the Sixth took part in several actions against the Indians; and in 1858 the regiment marched from Fort Bridger, Utah, to Benicia Barracks, Cal., a distance of over a thousand miles; during the following year, troops of the Sixth defeated the Indians at Fort Mojave, Cal., Truckee River, Nev. (after a march of three hundred miles), and Mad River, Cal.

Coming down to the Civil War, we find that the Sixth took part in numerous battles, among which may be mentioned Mechanicsville, Manassas, Fredericksburg, Chancellorsville and Gettysburg, its losses being heavy.

From the Civil War until 1898, various companies of the Sixth took part in a number of expeditions against the Indians.

The war with Spain is still fresh in our minds. The Sixth left Fort Thomas, Ky., April 19, 1898, for Tampa, and was assigned to the First Brigade, First Division, Fifth Army Corps. Landing at Daiquiri, June 23d, the regiment moved forward and took part in the memorable attack on San Juan; the percentage of loss was greater than that of any other regiment engaged. The official reports show four officers killed and seven wounded, and thirteen men killed and ninety-two wounded, over 36 per cent. of the officers and over 26 per cent. of the men. The tablet erected by the citizens of Cincinnati, Newport and Covington, on the water tower at Fort Thomas, Ky., which post was first garrisoned by the regiment, shows the appreciation, not only of the glorious work done at Santiago, but of the bearing and conduct of the officers and men during the time of peace before the war with Spain.

In the Philippines the Sixth occupied the Island of Negros from June, 1899, to April, 1902; and so effective was their work that peaceful conditions were brought about on that island first of all. Meanwhile two or three of the companies did excellent work on Panay, Cebu and Bohol.

On the second trip of the regiment to the Islands, headquarters and one battalion were stationed for a while at Tacloban, Leyte.

The following quotation speaks for itself:

"Provincial Government of Leyte,
"Office of the Governor,
"TACLOBAN, P. I., February 8, 1906.

"MY DEAR COLONEL:

"My term as governor expires at the end of this month, which will make three years that I have been governor of Leyte. During this time we have had several regiments of United States Infantry stationed in Leyte, with headquarters at Tacloban. I wish to express to you, your officers and men, my sincere appreciation of the hearty cooperation and excellent deportment of your command. This has been the only regiment, stationed here during the time I have been in Leyte, which has not had more or less friction with the municipal police and citizens, and I will frankly admit that the excellent discipline and deportment has been very noticeable when compared with other troops which have been stationed here heretofore; and this has not only been mentioned by myself, but by other officials of the Province as well.

"Yours sincerely,
"PETER BORSETH,
"Governor."

From Tacloban the regiment went to the Department of Mindanao, arriving just in time to take the principal part in the engagement with the Moros at Bud-Dajo, Jolo, March 5, 6, 7 and 8, 1906, capturing the first cotta taken on the mountain, though losing heavily. Companies K and M lost three killed and thirty-three wounded during the assault.

Later in the year a small party of the Sixth effected the killing, during an engagement, of Mungalayon, a noted outlaw in the district of Davao, who had murdered Governor Bolton of that district; upon leaving the department the Sixth was again highly commended for its excellent service.

From this brief sketch of the regiment, we see that it has covered in its travels the greater part of the United States, in addition to its service in Mexico, Cuba and the Philippines. Not only has it marched well and fought well, but during times of peace, wherever stationed, it has won the admiration and respect of all for its fine bearing and orderly conduct.

What does all this mean to us? We are here in the regiment three years, perhaps longer, possibly thirty years. Then we drop out and are forgotten; but the regiment lives. So long as our country lasts there must be an army, and there will be a Sixth Regiment of Infantry. Our work may seem unimportant to us, especially in time of peace. We may think it makes no difference to the regiment what we do—how we carry ourselves, but it does; we all count for something.

The people of Cincinnati, Newport and Covington knew the old Sixth; they respected it, admired it, loved it. When the Sixth left for Cuba, it could scarcely march through the streets of Cincinnati on account of the masses of the people who had turned out to bid God-speed to *their* regiment; upon returning, the reception to the *third* of the old regiment who marched through the streets was even more enthusiastic.

The most of the men of that Sixth are gone; now *we* are the regiment. And it rests upon us, not only to so prepare ourselves that when we are needed to fight our country's battles, we may uphold the record already made; but as well to do our work so that when we leave our different posts, the people of those places will think and speak of us with love and admiration.

Let us do our work as men, as individuals, day by day while we are in the regiment; if we leave the regiment, let us speak well of it or keep silent. And let us work together and prepare for what may come, be it peace or war.

Few, if any, regiments have such a record; not one has a better. Let us not spoil it. Let us not be satisfied until we feel in our hearts that the grand old Sixth Infantry is the best regiment, in the best army, in the best country on the earth.

SERVICE OF THE FIRST TROOP PHILADELPHIA CITY
CAVALRY DURING JUNE AND JULY, 1863.

BY A PRIVATE RECRUIT.

THE victories of the Confederate armies under Gen. Robert E. Lee at Fredericksburg and Chancellorsville on Dec. 13, 1862, and May 2, 1863, respectively, led to their bold invasion of Pennsylvania.

For personal, as well as military reasons, General Lee kept his plans and the proposed route of his army from the knowledge of even his own superior officer, Jefferson Davis, and during the latter part of May and early June there was an entire absence of information North or South as to the whereabouts or designs of the Army of Northern Virginia.

But in the Battle of Brandy Station on June 9th, in which nearly 20,000 cavalry on both sides were engaged, General Pleasanton captured the headquarters baggage of General Stuart, and among its papers indicating the plan of an invasion of Pennsylvania.*

When on June 14th, Ewell overwhelmed Milroy at Winchester, driving the remnants of his army to Harper's Ferry, the Governor of Pennsylvania, Andrew G. Curtin, issued a call for militia to meet the emergency.

The First Troop Philadelphia City Cavalry, at a special meeting held June 16, 1863, resolved to proceed to Harrisburg, and O. W. Davis, with generous patriotism, guaranteed funds for the purchase of horses (as recorded in the history of the First City Troop, reprinted 1895).

The following account is based upon the reminiscences of Sergt. R. E. Randall, Privates T. C. Oakman, G. H. Colket, Jones Wister, A. C. Barclay and the writer, sometimes correcting and sometimes corrected by the troop history—(History of the First Troop Philadelphia City Cavalry, from its organization Nov. 17, 1774, to its centennial anniversary Nov. 17, 1874, Hallowell. Phila. MDCCLXXV and 1895).—and the orderly book of First Sergt. M. Edward Rogers, kindly placed at the author's disposition by Captain Groome through the courtesy of the Treasurer and Quartermaster Hugh Craig. In some cases the language of these latter authorities has been used with slight verbal changes.

On *Wednesday morning, June 17th*, the horses were selected by the members and recruits at Twelfth and Chestnut streets, Philadelphia.

By noon the necessary number of animals was obtained, and the men were ordered to assemble on the lot behind the Academy of Music,

*This statement, often made, is erroneous, General Stuart's headquarters baggage was not captured, but the desk of his Chief of Artillery containing important papers fell into the Union hands. [EDITOR.]

Locust, between Broad and Fifteenth streets, at 5 o'clock in the afternoon, equipped and ready, which they did.

Thursday, June 18th, 11 A. M., men, horses and equipments were embarked on a special train at Mantua (West Philadelphia), and arrived in Harrisburg the next morning at 1 o'clock.

From the orderly book of First Sergt. M. E. Rogers, the complete roll of all who took any part in the campaign, including the bugler, numbers eighty-two men. Deducting from this complete list the names of those recorded as joining the troop at different dates after its departure from Philadelphia, the remainder, who embarked for Harrisburg with horses and equipments on this day, here follow:

Sergeants M. Edw. Rogers, Edwin T. Reakirt, Jno. A. Brown, Jr., Jas. West (Q.M.).

Corporals Alex. Hemsley, Harvey B. Goddard, Jos. P. Wood, Andrew C. Cattell.

Privates Henry Ashhurst, Wm. A. Bothwick, Peter A. Browne, Wm. H. Canby, Geo. H. Colket, Wm. S. Davis, Persifor Frazer, Jr., Robt. E. Gray, R. Somers Hayes, J. Morgan Jennison, Rchd. S. Mason, Wm. H. Merritt, Wm. H. Mercer, Thos. C. Oakman (1), W. Geo. Oakman (2), Theo. H. Reakirt, Wm. E. Rogers, A. Loudon Snowden, Jas. D. Wagner, Jno. Lowber Welsh, Jas. R. Wilkins, Jr., Edw. W. White, C. P. Williams—thirty-one in all.

Friday, June 19th, at 1 A. M., the thirty-one troopers, with horses and equipments, on their arrival in the State Capital were quartered at the Buehler House, where Cornet S. J. Randall, Sergt. R. E. Randall, A. Jessup, Gil. A. Newhall, L. A. Thompson and Jones Wister joined them. During Friday it rained. Without mustering the men into the service, the troop was accepted by the Governor on recommendation of General Couch, who said to the cornet: "I know we can trust to the honor of this corps without an oath."

In replying, the cornet thanked the general commanding and pledged the company to go wherever ordered, in or out of the State.

On this day and Saturday, until the hour of departure of the train for Gettysburg, the troopers remained in Harrisburg, where they met many friends in other commands; especially in Company D of the Gray Reserves, which regiment was on its way to Carlisle.

On Saturday, June 20th, the cornet made requisition for more ammunition and tents, which were supplied by the Government. On the arrival of the cars after four hours' delay, the troop, horses and equipage were entrained in Harrisburg for Gettysburg via York and Hanover Junction. In thirty minutes after the order to dismount, the horses, wagons, equipage and men were aboard the cars. Sergt. J. Francis Maher, to the regret of his comrades, was compelled, on account of illness, to return to Philadelphia.

Sunday morning, June 21st.—The men arrived at the H. J. and Gettysburg R. R. station in the latter town in a heavy rainstorm at

4 A. M., after a sleepless night. After a short bivouac by the side of the track, during which coffee was prepared, the horses and baggage were unloaded with some difficulty, owing to lack of facilities. The troop mounted and marched to McClellan's hotel (on the Center Square of the town and just behind the railroad station), where the horses were quartered in the stable and the men in the mows above them.

Cornet Randall reported to Maj. Granville O. Haller, (Seventh Reg. Inf., U. S. A.), commanding the post of invalid soldiers established in Gettysburg a short time previously, and was ordered with a detail of ten men to make a reconnaissance on the Chambersburg Turnpike toward Cashtown (distant about eight miles northwest of Gettysburg). They overtook two Rebels, who were captured and sent to the rear under the escort of Privates E. W. White, C. P. Williams and J. P. Wood. Unfortunately, White's horse took fright, ran away and threw him against a tree, fracturing his left leg above the knee. An ambulance was procured and he was carried to quarters, the two others bringing in the prisoners. In the afternoon a rumor reaching camp that the enemy was approaching from the direction of Fairfield (or Millerstown), eight miles southwest of Gettysburg, the remainder of the troop under Orderly-Sergeant Rogers, in company with Captain Bell and a squad of his local (six mos.) cavalry proceeded to reconnoiter and obtain information. About a mile from Fairfield (at Mud Run) the command came upon the enemy occupying a barn. Small squads of mounted infantry were observed riding across the fields to the west. Necessary steps having been taken to prevent surprise in the rear, the command cautiously approached to within half a mile of the town, in which were seen the enemies pickets. The scouts were then called in and a dash was made into and through the town, the enemy being driven a mile beyond to the mouth of the Gap, between Kepner's Knob and Jack's Mountain.

Returning to Fairfield, after detaching a small squad to skirt the western slope of the hills and cut off any stragglers who might be found, the cavalymen were hospitably received by the inhabitants and given food.

From the people of the town it was learned that a greatly superior force, estimated to be at least 160 men, had been stampeded by our men.

After a short halt the command, having fulfilled the object for which it was sent, returned to Gettysburg.

On Monday, June 22d, the baggage wagons, which had been sent to Oxford to prevent their capture in case of a sudden attack, returned with the guard, but were sent off again toward Hannover to await orders. Privates Connover and J. Lowber Welsh were detailed as orderlies to Major Haller. Privates Wagner and Williams were detached to convey Private White to Philadelphia. Cornet Randall accompanied them to Harrisburg on business of the troop.

In the afternoon a detachment was sent to Cashtown and returned at midnight, bringing important information of the enemy.

Tuesday, June 23d.—Clear and pleasant. The company was called to horse about 2 p. m., a report coming in that a small body of the enemy had approached quite close to Gettysburg. Maj. Chas. McLean Knox, of the Ninth New York Cavalry, being in command, started out of town with the troop at a run. The distance to Cashtown is about eight miles. Arriving there he discovered the enemy was near Monshour's tavern in Newman's Gap of the South Mountain, some distance above. A guard of ten men under Sergt. J. A. Brown was left at Cashtown, while the rest of the troop returned to Gettysburg at 9 p. m. The men were ordered to saddle about 11 p. m., and were in readiness all night.

Wednesday, June 24th.—Clear and pleasant. Many alarms occurred during the day. The men were ordered to keep their horses saddled for any emergency and were on the alert all night. Pickets were sent out on the Cashtown road; the distant pickets were relieved, and scouting was undertaken in all directions to the west. The citizens of Gettysburg were unremitting in their generous attention to the men.

Thursday, June 25th.—"Boots and saddles" was sounded at 6 a. m., and the troop was sent to Cashtown to ascertain the numbers of the enemy and whether the presence of their scouts indicated an easterly movement of Lee's army across the South Mountain. On reaching Cashtown the men were halted before reaching the toll gate, where they made a very weak barricade with the view of stopping the enemy in case he should charge the advance guard, which proceeded up the road under the charge of Sergeant Reakirt. When it had gone about a mile toward Newman's Gap, the squad was halted and Jones Wister volunteered to go ahead and feel for the enemy. After riding a few hundred yards he was fired upon by three men, more being seen in the distance. One detachment discovered seven of the enemy's pickets about two miles beyond the toll gate and drove them to the main body, which filed across the road and delivered a volley without result.

The advance was ordered to join the rest of the troop at Cashtown. The troop was here divided into three detachments. One under Sergeant Reakirt remained in the town; another under Major Knox and Cornet Randall proceeded south along the flank of the South Mountain to Fairfield (or Millerstown), and thence to Gettysburg, after thirteen hours' service in the saddle, and the third, under Captain Bell, proceeded northwest from Cashtown to Arendtsville through Hillstown (about $3\frac{1}{2}$ miles). After scouting some distance north of Arendtsville, where the enemy had been but a few hours before, Captain Bell returned southeast along a road crossing the Chambersburg Turnpike at Mummansburg, and thence by crossroads circling Gettysburg at a distance of some five miles, entered the Emmetsburg road, where he halted for the night, proceeding at daybreak to Emmetsburg, and on the way encountering several of Milroy's men, who had been driven from Win-

chester by the advance of Ewell's corps. This detachment returned to Gettysburg that day, having been twenty-seven hours on active duty, over twenty of which were passed in the saddle.

Friday, June 26th, opened with a cold northeast rain. Captain Bell's command relieved the picket which had been out all night on the Fairfield road, and which returned to Gettysburg about 11 A. M.

The information which had been gathered in the last forty-eight hours of scouting had been despatched at dawn by Private Frazer to a point about fifteen miles north of Gettysburg, whence the report was forwarded to the Governor.

The morning passed without excitement. The command was taken to the Washington House (McClellan's Hotel) to dine. While at dinner a messenger came in with an order to saddle, as the enemy were seen rapidly approaching the town. Soon the farmers were rushing through town and taking the road to York.

At noon, the private sent with the despatch to the Governor having just returned from his thirty-mile ride, found the command already mounted and in line in front of McClellan's Hotel. He was permitted by Cornet Randall to make a hasty meal there, but was ordered to follow as soon as possible, and to lead a bolting mare of Private Williams, who had been detached on special duty to Philadelphia, as above stated.

A large body of the enemy's cavalry, afterward ascertained to be White's brigade of Early's division of Ewell's corps, was seen fast approaching Gettysburg on the Chambersburg Turnpike, and not more than two miles distant. The roan horse ridden by the trooper just mentioned, tired by its journey of the morning, could not move out of a slow and reluctant walk; the blooded mare to be led, notorious for bolting, showed a frenzy to follow its retreating mates. At this juncture Corp. Harvey Goddard (accompanied by private recruit W. E. Rogers, acting also as covering corporal) ordered the private to transfer his saddle to the mare and lead the tired horse.

This having been accomplished and the saber and accouterments of Williams having been strapped with his saddle on the roan, the attempt to lead the latter proved equally unsuccessful. Corporal Goddard ordering the private to drop the roan and follow Private Rogers and himself, who therefore rejoined the troop, which by this time had left Gettysburg by York street. This was done just as White's advance guard, led by a Gettysburg guide, rode into town.

On the previous day this private had invited a resident of Philadelphia, whom he met in Gettysburg, to visit the troop's quarters and compound that troop specialty called a "Tuscanoggin." Noticing this Philadelphian on a corner of York street, while galloping by, the trooper shouted to him to postpone the visit. This man, who originally came from Adams County (of which Gettysburg is the county town), told the writer long afterward that in less than a minute after this hail the advance guard of White's cavalry, piloted by a citizen of Gettysburg,

who was an acquaintance, reached the spot, and the latter, pointing to the retreating trooper, said: "We shall have that fellow alive or dead."

The pursuit began, but on unequal terms, as the fleet-footed bolting mare was fresh, while the animals of the cavalry brigade were jaded by a long ride.

York street forks within the town, the northeast branch running to York (the county town of the neighboring county of the same name), along the York and Gettysburg Turnpike. The eastern branch leads to Hanover. The troop, led by Cornet Randall, took the former or northeast branch as far as the toll gate, but, a few hundred feet beyond, left the turnpike and took the Hunterstown road, leading but little east of north. (Sergt. Robert Randall, who was riding with his brother, the cornet, at the head of the column, recalled that the latter asked the toll-gate keeper for the best road to York, and was told to take the dirt road to the left, which was a few rods off, and after reaching a certain point to turn to the right and cross the turnpike.) At the toll gate the despatch bearer of the morning, who was the last trooper out of Gettysburg, observed a group of soldiers just arrived that morning, and shouted "Good-by" to them. These men were supposed, at the time, to be invalids from the Army of the Potomac, but were probably part of the Twenty-seventh Pa. Vol.

He had hardly reached the second fork leading into the dirt road to Hunterstown when he heard a number of shots in rapid succession from the pursung enemy. Some further shots were sent after him to which he replied with his revolver. Private Wm. Rogers also discharged his revolver at the advancing enemy from the rear of the troop as the last man joined it.

Private George H. Colkett and two or three other men of the troop accompanied Captain Bell in his retreat from Gettysburg by the Hanover road via Hanover Junction, and thence to York, where they arrived four or five hours after the main body.

The main body of White's cavalry continued the chase along the turnpike toward York, with the intention of cutting the troop off, but a small squad followed it along the Hunterstown road, and several times the advance guard of the enemy came within sight of the troop's rear-guard; on observing which First-Sergeant Rogers twice ordered a countermarch to attack the pursuers, but in both cases they retreated. This march was notable for the rapidity with which it was executed, and for the very bad condition of the roads. The rain had converted the latter into mud of all grades of consistency, and as the horses galloped, they threw up huge clods and stones, which rained over those in the rear. But one man (Canby) reached York that night with recognizable features, and he accomplished this only by guarding his face with his cape.

The choice of the Hunterstown road was probably made by Cornet Randall to avoid the pursuit, which was certain to be made along the turnpike to York.

At Hunterstown the command turned to the right (southeast), and again to the right at the first road, crossing the Gettysburg-York Turnpike at a point about $5\frac{1}{2}$ miles east of Gettysburg. Just before crossing the commanding officer hesitated whether or not to halt the men for water and a brief rest, but (it was said at the suggestion of First-Sergeant Rogers) finally decided to push on, and this decision saved the command from capture; for hardly had the last man disappeared over a roll in the road about a quarter of a mile or so to the southeast of the turnpike when the main body of White's cavalry crossed the dirt road and sped toward York at a gallop. Had our men halted where an enticing spring and farm-house tempted them, in full sight of the turnpike, they must inevitably have been captured, as they were outnumbered ten to one, and retreat would have been cut off.

At nine or ten that night our completely exhausted horsemen rode into York, many of them sitting their horses like wishing-bones across knife blades. The account of Sergeant Rogers is:

"Orders were given to proceed to York by a back road. The column was ordered to take a gallop, which it kept, fortunately, for some distance, and had not passed the road which forms the base of the triangle with the pike and the road it was on, more than five minutes, when the Rebel cavalry appeared and gave chase, which lasted for about six miles. The rear-guard exchanged shots with them and the wagon-driver was pretty nearly captured.

"It having rained all the previous night and day the roads were horribly muddy, and the consequence was the men were so splashed with mud, it was impossible to recognize them. Some of the horses lost their shoes and went lame, so the men pressed the first they came across. Altogether, it was a most peculiar retreat. The troop ran about twelve or fourteen miles, and continued its journey at a walk as far as York, where it found quarters at a hotel. The men were very much exhausted, and so muddy they were in despair of ever getting it off or of presenting a presentable appearance. Welsh not being able to procure a horse was taken prisoner and paroled. He had taken off his uniform in order to evade them.

Saturday, June 27th.—"Clear and pleasant. During the morning crowds thronged the streets of York, seeking to escape from the Rebel Army, which, very naturally, they imagined to be closer than it was.

"The men were allowed to rest until quite late in the morning; hostlers were employed all night getting the horses in order. Reports of all kinds were constantly coming in. About 1 o'clock came reliable information that the enemy had been at Hanover at 10 o'clock in the morning, which gave them time to get very close to York. The troop was ordered to saddle and proceeded to the fair ground to join the other cavalry under Captain Bell, where both were kept standing for fully two hours. At length orders came to proceed to the front and attack

the enemy, supposed to be in great strength. Like that celebrated emperor we walked up to the top of the hill and came down again."

* * * * *

[NOTE.—In the *Rebellion Record*, Vol. 7, p. 321, Document 81, an account in the *York Gazette* states in substance that the York authorities received news of the approach of the enemy on Friday, June 26th. From a Union scout it was learned Saturday, June 27th, that the force numbered 10,000 men, upon which a citizen of the borough, Mr. Arthur Farquhar, went out to meet the commanding officer of the hostile forces and obtain permission from him to return and inform the committee of citizens of the fact that the town would be occupied. This permission was given on condition that he should return and inform General Gordon whether there would be any resistance offered. The Safety Committee decided to make no resistance. Thereupon Chief Burgess Small, Geo. Hay, Thos. Latimer Small and Mr. Farquhar went out to meet the advance, to ask protection for property and unarmed citizens.]

Gordon's troops entered York Sunday morning, June 28th, at ten o'clock.

The forces in and around York consisted of Gordon's, Hoke's, Hay's and "Extra Billy" Smith's commands of Early's division of Ewell's corps. Their cannon were part of those captured from Milroy at Winchester, heavy brass pieces and 5-inch Parrott rifles.

Twelve years later, when the writer was stationed at York in charge of a department of the geological survey of the State, many of the chief personages of the borough, who had lived there in 1863 and before, asserted that the object of that ride out of York on the 27th of June was that Chief Burgess might surrender the keys of the town (figuratively) to the advancing general, and thus appease him and moderate his rigors toward the inhabitants of York. The presence of troops was said to have been requested in order to lend dignity and impressiveness to Chief Burgess Small's mission.

Having gone a short distance beyond the limits of the town without seeing the enemy, the troop filed off to the east and took the Wrightsville turnpike to that town.

On Saturday evening, June 27, 1863, at Columbia, six men, Francis Barton (a member), and five recruits, viz., Alfred C. Harrison, A. Charles Barclay, E. H. Shaw, George H. Newhall (1) and Geo. Morris, joined the command.

Sunday, June 28th.—Clear and pleasant. The troop was marched across the bridge to Wrightsville together with other troops, including the Corn Exchange Regiment and a regiment from the interior of the State, to throw up earthworks and check the advance of the enemy, who was reported approaching. Arrived in Wrightsville, the troop were lined up along one side of the main street and dismounted. A number of the privates were assigned as aides and orderlies to the officers in

command. Sergeant Reakirt then called for volunteers to act as a guard until all the troops had passed over on the pier selected for the mine in their inevitable retreat. This pier was the fourth from the Wrightsville end, and several hundred yards from the shore. All the members volunteered. Six were chosen, viz.: P. A. Brown, Robt. E. Gray, Henry Ashhurst, Thos. C. Oakman, Geo. H. Colket and Persifor Frazer, Jr.

By this time firing had been going on for a considerable time between the advance skirmishers and the strong skirmish line of the enemy, which was thrown around the right flank of the defenders in the rifle-pits. With an overwhelming force against them it was impossible to hold the hastily constructed works, and a retreat was ordered.

From the Rebellion Record, Vol. 7, p. 322, a description of the above-narrated facts is given. In substance it is said that firing began at 6.30 p. m. (somewhat later than the memory of the writer would place it). Colonel Frick, with a regiment recruited in Lehigh, Berks and Northampton Counties, Pa., three companies of Colonel Thomas's regiment (the Twentieth), the City Troop, Bell's independent company of cavalry from Gettysburg, several hundred men unattached, and about two companies of volunteer negroes, constituted the force which held the enemy (estimated at 8,000 strong) at bay for forty-five minutes.

The intrenchments of Colonel Frick were thrown up across the valley, but were simple trenches commanding the turnpike. Had they been supported by other works on the flanking hills they might have been tenable by a sufficient force, but they were easily and quickly flanked and were enfiladed by shot and shell and rifle-fire. Many of the shells fell in Wrightsville, and even into the river, etc.

Two freight cars had been run along the railroad track on the right bank of the Susquehanna, in such a way as to cover the entrance to the bridge and thus prevent a direct charge into it.

Ashhurst and Browne were assigned the duty of remaining by this obstruction to give notice to the party at the mined pier of the approach of the Confederates. The retreat had already begun, and the infantry, together with citizens of Wrightsville and vicinity were streaming around the temporary *tête-du-pont* formed by the freight cars. Many of the troops threw away their guns and equipments which impeded their flight.

The planking had been partly removed on both sides of the pier to prevent the passage of cavalry, artillery or wagons. Major Knox and Colonel Frick stood on the footway on the down-stream side of the bridge, superintending the retreat, their horses picketed to the beams. One old negro to whom was entrusted the duty of igniting the fuse sat very coolly on the edge of the pier, smoking a cigar.

The retreat of the troops was for the most part disorderly, the only exception, from the mined pier to the Columbia end, were the main body of the troop and Company I of the Corn Exchange Regiment, the latter marching with broken step in orderly line amid the confused

crowds of citizens and soldiers. Colket, Gray, Oakman and Frazer were stationed near the four corners of the pier to prevent any panic-stricken soldier from prematurely exploding the mine.

After the first noisy and excited mob had rushed past this place there was a lull. At last the pickets, left at the entrance of the bridge, rode in with the report that the advance guard of Confederates was rapidly approaching; picked their way over the partly dismantled carriage track (which was thereupon made impassable for horses), and were ordered to join the main force of the troop at Columbia, at the other end of the mile and a quarter long bridge.

Another short lull ensued, broken only by a few shells and rifle-shots from the enemy, when suddenly a few daring Confederate cavalymen dashed around the cars and into the bridge for an instant, discharging their revolvers and disappearing immediately.

The order was then given to the troop guard to follow their companions to Columbia, Col., Frick's horse being led by the writer, who was the last of the four, leaving only Colonel Frick, Major Knox and the negro at the pier. The writer expected every second to hear a loud explosion, but as the distance increased between himself and the "mine," his astonishment at the absence of any detonation augmented. At the Columbia entrance were two light guns trained on the bridge, which seemed to be sufficient to check any projected passage by an enemy. Emerging from the covered structure into the open air, he saw a curl of smoke rising from the pier where the mine had been placed, and shortly afterward a column of flame mounted high in the air.

The reason for the absence of an explosion was said to have been that the "mine" consisted of several augur holes bored in the supporting beams and filled with powder. The intention was to blow up the support of the span between the third and fourth piers and throw it into the river. But the augur holes were too deep and the explosion merely blew out the bottoms of the holes. Whether the attempted explosion of itself set fire to the bridge, or whether this was accomplished by other means when the mine failed, is unknown to the writer. It was now evening, and as the darkness increased the spectacle of the burning bridge grew more imposing. Before 9 o'clock, fear began to be entertained for the safety of the town of Columbia, and all able-bodied soldiers and some citizens worked hard to tear up the planking and dismantle the bridge to check the fire, but the effort was vain, and the flames steadily advanced from the western shore.

First Sergeant Rogers' notes say:

"When it was proposed that the troop should try to save half of the bridge, the men immediately fell in and proceeded to the bridge, where they worked as industriously as possible for two hours, but to no effect, as they were not in sufficient force to cut the bridge away. The citizens positively refused to do anything until compelled, with drawn pistols, to go to work, but such forced labor was found to be of no avail. The

fire advanced with such rapid strides that it was necessary to abandon the structure to the flames. The men returned to quarters quite exhausted."

By observation of the watch during the burning of three or four spans, it was found that twenty minutes elapsed from the time the west end of a span first caught fire until the whole span fell into the river in flames.

The fire was started at the extremity of the third from the Wrightsville side, and there were twenty-one spans. The eighteen spans between the origin of the fire and the Columbia shore took, therefore, very closely six hours to burn, and the fire having been set, say about 7 P. M., the destruction of the bridge was complete by 1 A. M. Monday morning. It would be difficult to imagine any grander sight than the arches of burning flame from the ill-fated bridge, the reflection of the light on the foliage of the island below it, and the hissing of the fire rafts, each consisting of one partially consumed bridge-span floating down the river with the current, temporarily arrested by obstructions, and the whole mass finally stringing out into a line of fire and a shadow of charred wood to the falls below. But the same scenes were transpiring in Columbia and in Wrightsville. In the latter place the Confederate soldiers were working as hard to save that town as their foes to save Columbia. It was late before the danger of a general conflagration was passed, and the tired troops were able to seek rest.

Monday, June 29th.—Cool and showery. The river was, very fortunately, not low at this time, or the towns of Harrisburg and Columbia would, in all probability, have been occupied, and the line of the Pennsylvania Railroad, on which the armies of the West so greatly depended, would have been at least temporarily crippled.

It was thought that the Confederates were going to attempt to cross by one of the several fords near Columbia, but, on the contrary, it was discovered that they were falling back from Wrightsville.

Monday, 29, 1863.—Cool and at intervals sprinkling. The company was ordered out at 11 o'clock to impress men to work upon the fortifications. Dividing the troop into eight squads they started out in different directions, and were eminently successful in their efforts. A good many amusing scenes occurred, the citizens supposing they were to be impressed into the army for six months or more. The provoking part of the affair was that after spending some three or four hours in collecting them, they were discharged for two hours by the provost marshal to enable them to arrange their affairs. Of course they never returned, and the troop gained the ill-will of every one in the town. The notes of First-Sergeant Rogers proceed:

"The people here seem to be all copperheads of the vilest description. Cornet Randall was appointed provost marshal of the town and our company ordered to do patrol duty, which gave additional offense to the

citizens. Corporal Wood took the first patrol out, and gave orders to stop the sale of all liquors, both spirituous and malt.

"The troop performed patrol duty night and day during their occupancy."

Columbia, *Tuesday, June 30th.*—"The company are performing regular patrol duty and are keeping the place in good order. The citizens seem to detest the soldiers and have nothing to do with them, very unlike Gettysburg, where we were received with much kindness, which place unfortunately has been burned by the Rebels. Have since learned that the statement about the burning was a mistake."

Wednesday, July 1, 1863.—"Clear and pleasant. The men not on duty were taken out to drill and did very creditably, considering it was their first drill. The horses are all good and will soon be broken in to their work. The men, after strenuous exertions, have succeeded in getting themselves thoroughly cleaned up after their muddy campaign. A detachment patrol the town from 7 A. M. until 12 P. M., keeping the town in order."

Columbia, *Thursday, July 2, 1863.*—"Clear and warm. The regular patrol duties are being performed to the satisfaction of the commanding officer, Colonel Knipe. About 5 o'clock (A. M. Ed.) a detachment of twenty-one men, under Sergeant Randall, were ordered to cross the river on flat-boats and proceed to York to catch some stragglers from the Rebels, who are said to be stealing horses and committing other depredations upon the citizens.

"A squad of nine recruits arrived with their horses from Philadelphia:

Hy. C. Diehl
Archer Tevis
Nathan G. Frame
Francis McMurtrie
Johnson Hubbell
Hy. G. Smith (1)
—— Neff
Chas. M. Rhoads
J. Lindley Johnson (member)

"The town was thrown into quite an excitement by the arrival of 192 paroled prisoners taken by the Rebels in the neighborhood of Westminster; most of them belonged to the First Delaware Cavalry, and were a pretty rough set; they had been marched all one day at the double quick.

"Thirteen Rebel prisoners captured at York were ordered to be sent to Fort Delaware under a guard from our troop. Sergt. Jno. A. Brown was given command, and with four men—Newhall, Mason, Snowden and W. E. Rogers—left at 5 o'clock P. M. for that point."

A scouting expedition was decided on by the commander.

The men who took part in this scout (called a picket in the *Orderly Book*) were the following, according to the same authority.

A date following the name indicates when the person joined the troop. Names without such dates are of troopers who came to Gettysburg June 21st:

Sergeant in command, Robert Ewart Randall.

Privates A. Chas. Barclay, Francis Barton (June 27), P. A. Browne, Wm. A. Bothwick, Aug. M. Conover, Geo. H. Colket, Wm. Stevenson Davis, Rchd. G. Devereux (June 28), Hy. C. Diehl (1st) (July 2), Persifor Frazer, Jr., Alf. D. Jessup, J. Lindley Johnson (July 2), Jas. C. Kempton (June 27), — Neff (July 2), T. C. Oakman, Geo. Y. Passmore (June 28), L. A. Thompson, Jones Wister, Jos. R. Wilkins.

This detachment passed through York along the road to Berlin and Heidlersburg, following the route taken by Ewell's corps shortly before. Wister and Bothwick were detached on special duty. The remainder arrived at Heidlersburg sometime after noon. The horses were already unsaddled and the men were preparing to take their meal, when the daughter of the proprietor of the inn, where the halt was made, informed Sergeant Randall that there were Rebel troops in the vicinity, and that her father had gone to notify them of the presence of Union cavalry. Upon this information Sergeant Randall immediately ordered "to horse," and with what provision it could obtain, the command followed the road east of the Harrisburg-Gettysburg road to the cemetery of the P. E. Church, called the "White Church" (which has now entirely disappeared), where it bivouacked for the night. While halting at Heidlersburg and during the afternoon and part of the night, the squad heard the roar of artillery to the south, in the direction of Gettysburg, and occasionally the higher pitched rattle of volleys of musketry.

The men slept in the cemetery with vedettes at the extremities of the short crossroad, their horses being tethered, but saddled and ready. In the early evening a thunder of hoofs was heard on the main road from Harrisburg to Gettysburg, and on a parallel road which branches off from the latter at York Springs and runs to Hunterstown—that is to say, on both sides of the little group of troopers—and a large body (about 6,000) of J. E. B. Stuart's cavalry were seen by our vedettes, following both these roads until far into the night. During their passage south they completely surrounded the parallelogram some three miles long and a mile wide in which the cemetery was situated, yet without discovering the squad's presence. This was the body which engaged Gregg's cavalry the next afternoon, July 3, at Rommel's farm.

Friday, July 3d, and Saturday, July 4th.—Sergeant Randall hovered with his command on the outskirts of the great battle, gathering a number of stragglers and upward of sixty horses, most of the latter with the enemy's brand upon them. These were ultimately turned over to the United States military authorities.

Saturday, July 4th, Columbia (from the Troop Orderly Book).—"The main body of the troop left Columbia at 5 A. M. to breakfast at Bainbridge. Left Bainbridge at 3 P. M. in the rain, and reached Harrisburg at 10 P. M."

Sunday, July 5th, Harrisburg.—The scouting detachment was again in York, and in the evening heard the inspiring news of the victory of Meade at Gettysburg; the report of the surrender of Vicksburg to Grant, and the reported capture of Charleston by Gillmore, which latter unfortunately proved false.

Monday, July 6th.—Sergeant Randall returned with his command by way of Columbia, having accomplished the objects for which he was sent.

Harrisburg, *Tuesday, July 7, 1863.*—Cloudy and threatening rain. "Left Harrisburg about 9 o'clock A. M. for camp about two miles out of town, on Simon Cameron's grounds, in the upper part of the place known as Lochiel. The grove is a fine one, mostly of hickory timber, with a good spring and brook of water on the lower side. A suitable position was chosen and the picket rope stretched, the tents being pitched in a parallel line, making one of the prettiest camps the troop has ever been in. The tents were just up when a rain commenced and came down in torrents for the remainder of the day and all night, almost flooding the men out. It was more unfortunate, as they were almost all new at camping and did not understand making themselves as comfortable as circumstances would admit. A squad of three men reported themselves—Wright, Mitchell and Roberts."

"The non-commissioned officers spent a very merry evening. Private Conover, owing to ill health, was sent home."

Camp O. W. Davis, *Wednesday, July 8, 1863.*—"Raining in torrents and mud in abundance. The men turned out in the morning in better spirits than had been anticipated. The regular routine of duty was gone through with as well as circumstances would admit. The dinner, owing to the rain, was not of the most sumptuous description, as the rain would put the fire out in spite of all that could be done.

"Some of the men were taken sick, and, under the care of Dr. Alfred Zantzing, were stowed away in an adjacent barn and, owing to his kind attention, soon recovered their usual health and spirits.

"The rain slackened about sundown and a star in the evening was hailed with joy by the men.

"A squad of three reported themselves in the afternoon: H. M. Watts, Cornelius Stevenson, — Smith (2d)."

Camp Davis, *Thursday, July 9th, 1863.*—Clear and pleasantly cool. "The men were all turned out and made to thoroughly police the camp, which occupied some hours, as there was much rubbish to remove. The blankets were dried and tents aired."

M.E.R. O.S.

Camp O. W. Davis, *Friday, July 10, 1863.*—"Took the company out to drill. Found a splendid lot for the purpose, and procured permission to use the same. The company did pretty well, considering many of them had never drilled before. *Young* joined as recruit."

M.E.R. O.S.

Camp O. W. Davis, *Saturday, July 11, 1863.*—"Took the company out to drill on the same grounds as yesterday, saw a marked improvement in their evolutions. The horses do remarkable well."

M.E.R. O.S.

Camp O. W. Davis, *Sunday, July 12, 1863*.—"It rained fearfully during the night, and almost flooded the men out of their tents. Fortunately, it did not interfere with the inspection which had been previously ordered for 10 o'clock that morning, which was very creditable to the men and officers. We had a visit in the afternoon from several gentlemen from Harrisburg. They ran against a 'Tuscanoggin' several times, which had the effect of making them believe it was not raining."

Camp Davis, *Monday, July 13, 1863*.—"Another rainy night."

Camp Davis, *Thursday, July 16, 1863*.—"The orders received yesterday to move were put in effect this morning. The tents were struck, wagons packed and the men in line at 8 o'clock A. M.

"We bid adieu to Camp O. W. Davis and marched into Harrisburg, when, by request, we drew up in line in front of the Buehler House and presented arms to General Stahl."

Thursday, July 16th.—"The troop was sent back to Philadelphia by rail, arriving at 6 o'clock in the evening."

Friday, July 31st.—"The troop was relieved from duty by order of General Cadwalader."

The above is the result of an effort to relate without ornament a tour of very commonplace duty, performed by a troop which, for more than a century and a quarter, has had the honor of performing many others of the same kind. There was nothing heroic, nor any pretension to it in this service, but only a faithful performance of the duty demanded; and this is a sufficient answer to the flippant and ill-natured criticisms sometimes aimed at this corps by those who either do not know, or purposely falsify, the narratives of its work and the character of its men.

It is a humble record of hard toil which, had it not been done by the troop, might have fallen to the lot of others, who would have thus been prevented from becoming heroes.

As a net result of this faithful service, dwarfed to infinitesimal proportions by its juxtaposition to one of the most momentous battles in the world's history, it has been recognized by competent military critics that through the efforts of the First City Troop and Bell's cavalry, the first intimation reached our great war-Governor, Andrew G. Curtin, and through him the Government at Washington and General Meade, of the presence in force of the enemy in the South Mountain, and his movement toward Gettysburg.

Also that the spirited skirmishes of Randall's and Bell's cavalrymen in the eastern gorges delayed the Confederate movement in force across the South Mountain for several days; or until the Confederate officers found that they were dealing only with irregular bodies and not the protecting squads of the Army of the Potomac. This delay was of great value to the Union cause.

The following letter was received by Cornet S. J. Randall, from Governor Curtin:

"Pennsylvania Executive Chamber,

"HARRISBURG, July 30, 1863.

"SIR:

"For the present emergency, the First City Troop of Philadelphia, under your command, is no longer required for service, and you are now relieved. I take this occasion to present to the officers and men of the troop the thanks of the State for the promptness with which they tendered their services when we were invaded by a Rebel Army, and for the cheerfulness and gallantry with which they performed all the duties assigned to them.

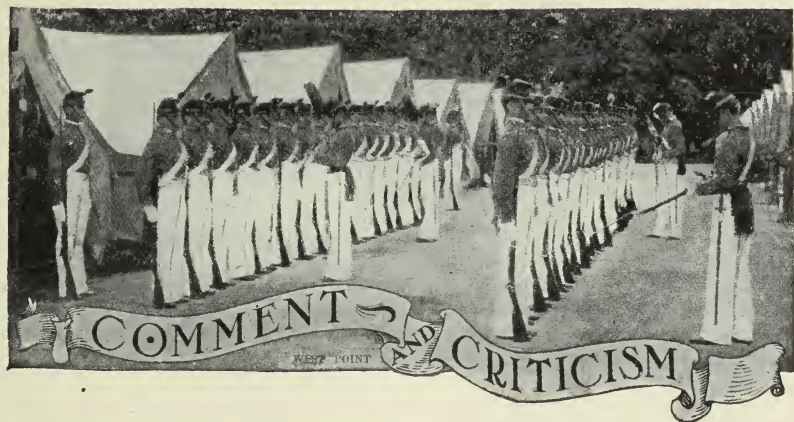
"Very respectfully,

"Your obedient servant,

"A. G. CURTIN."

Cornet, S. J. RANDALL,
Commanding First City Troop.





"Trumpeters and Trumpet Calls."

Major F. A. Mahan, U. S. A., Retired.

In saying my last word (for I shall write no more on this subject) in answer to Lieutenant Wieser's reply to my criticism of his original article, I wish to remark that, in noticing the latter, I thought that I had to do with a musical article. Lieutenant Wieser has now shifted his ground, to a certain extent, by introducing army regulations, guard-duty regulations, field-service regulations, all of which, as quoted by Lieutenant Wieser, showing that they have been drawn up by persons who know very little, if anything, of musical matters. It is, therefore, not worth while for me to follow on that ground, where the musical element no longer exists.

Before sending my first article to the *JOURNAL*, I submitted both Lieutenant Wieser's paper and my own to the highest authority on these matters of whom I have any knowledge, Mr. Victor Mahillon, of Brussels, the well-known director of the Museum of the Royal Conservatory of Music in that city, as well as the head of the firm of Mahillon and Co., manufacturers of musical instruments, and, probably, the foremost authority of the world to-day on acoustics as applied to musical instruments. Mr. Mahillon, who is now nearly seventy years of age, has devoted more than fifty years of his life to the study, improvement and perfecting of wind instruments especially. He has had all the time the benefit of the practical ideas of the many able professors of the Brussels conservatory, a school which is celebrated throughout the world and of which such men as Fétis and Gevaert have been the guiding spirits. My article on "Trumpeters and Buglers" was fully approved by Mr. Mahillon before I let it go out of my hands.

I wish to protest against the use of garbled and mistranslated quotations from Arban's work, such as appear on page 260 of the September-October number of the *JOURNAL*. In saying this, I wish it to be under-

stood distinctly that I do not blame Lieutenant Wieser for this in any way. He has been led astray by an English reproduction which, as it appears to me, has been intentionally mistranslated.

The moment that I read Lieutenant Wieser's reply to my criticism, I knew that Arban never could have said what is attributed to him. Arban's heading is: *Manière d'attaquer le son*, for which Lieutenant Wieser gives:

"Method of striking or commencing the tone," a translation which is, to say the best of it, very loose, and, in view of what follows, wholly wrong. Lieutenant Wieser continues, under this heading: "We find that * * * 'the performers should invariable *strike* the note' * * *." If Lieutenant Wieser will get Arban's original work he will find that Arban says absolutely nothing which could be even tortured into this shape.

What Arban does say is this: "Sight must not be lost of the fact that the expression, stroke of tongue (*coup de langue*) is only a conventional word; the tongue, in fact, gives no stroke; for, instead of striking, it makes, on the contrary, a movement backwards, it fulfils only the office of a valve (*soupape*).

"This effect must be well borne in mind before placing the mouthpiece on the lips. The tongue must be placed against the teeth of the upper jaw, so that the mouth may be hermetically closed. At the moment that the tongue is withdrawn, the column of air which presses on it rushes violently into the mouthpiece and produces the sound."

Evidently, the stars in Lieutenant Wieser's quotation cover matter which he regards as being unimportant, but the full quotation from Arban's work bears out fully my contention that the notes are not hammered out with the tongue, and that the function of the latter is that of a valve.

Arban says also under the head of "Manner of breathing" (*Manière de respirer*):

"The mouthpiece having been placed on the lips, the mouth should be opened at the sides and the tongue withdrawn in order to let the air penetrate into the lungs. The belly should not be swollen out, it should, on the contrary, rise gradually as the chest is expanded by the effort of taking in the air.

The tongue should then be put forward against the teeth of the upper jaw, so as to close the mouth hermetically, as would a valve (*soupape*) which had to maintain the column of air in the lungs.

At the moment that the tongue is withdrawn, the air which was pressing upon it rushes into the instrument and causes the vibrations which produce the sound.

Here again the tongue is likened to a valve, and, beyond letting the air escape with a rush from the lungs into the instrument, it has nothing to do with the production of the sound.

Lieutenant Wieser continues the quotation from the translation of Arban's work in this wise:

These are the only three methods of commencing, or, as it is called, "striking" the sound; further on I will duly explain the various articula-

tions. I shall not pass to the slur until after the pupil shall have thoroughly mastered the striking of the note.

This is not what Arban wrote. In order to give a learner an idea of the action of the tongue, Arban tells him to use the syllable *tu*, of course, with its French pronunciation. A careful observation of the motion of the tongue in doing this will show anyone that the tongue recoils from the teeth.

Arban says: "The pronunciation of the syllable *tu* serves to cause the attack of the sound." He then describes three different ways of giving this pronunciation: The first is with *beaucoup de sécheresse*, i. e., quickly and sharply; the second way is less quick and sharp; the third way draws the sound out to nearly the full value of the note, the syllable then becoming rather *du* than *tu*.

Arban then continues:

There are only these three ways of attacking, that is to say, of separating the sounds; further on I shall make known the other articulations. For the time being, it is necessary to know and study only the single *coup de langue*, because the success of a good performance depends entirely on this starting point.

As I said above, the way of attacking the sound shows whether you have a good or a bad style. The first part of this method (i. e., the text-book, F. A. M.) is given up entirely to this kind of studies; I shall go on to the slurs only when the pupil knows perfectly how to attack and place (*poser*) the sound."

The expression "striking the sound" is misleading. It arises undoubtedly from a total misapprehension of the action of the tongue and its function in producing a sound. To say "taking a sound" means nothing, the expression is devoid of character. The "taking of a note," meaning the way in which it should be fingered, is clear. Attack is far more expressive and accurate.

I regret that Lieutenant Wieser has not specified wherein lies the contradiction in what I said on pages 218 and 219. I have reread these pages carefully to try to find a contradiction, but I discover none.

Lieutenant Wieser has brought Arban into the discussion in order to try to establish a point which that author disclaims absolutely and directly, but, as I said before, Lieutenant Wieser has been led into error by a translator who wilfully or ignorantly mistranslated Arban's words.

Arban was appointed professor of the trumpet at the Conservatory of Music in Paris in 1857, and professor of the cornet in 1860. As Lieutenant Wieser relies on him to such an extent as an authority, he will doubtless admit other professors of that institution to the same status. I referred what he said about the use of the mouthpiece alone, as a means to "help to preserve the embouchure of an experienced player and to serve to strengthen that of a beginner," to three of the professors of the trumpet, the cornet and the trombone. The first two say that, in their opinion, such a course cannot be other than hurtful to the lips by making them stiff and hard and destroying their elasticity.

The professor of the trombone says: "The means employed are an enormity which it is the duty of every performer to repel." I also asked the Bandmaster of the Republican Guard for his opinion. (I may say here that this officer won a first prize for the cornet at the conservatory. He won his present place against thirty-seven competitors in a very severe examination before a board composed of the professors of the conservatory, the members of the musical section of the Academy of Fine Arts, and two retired bandmasters of the army, one of them being his predecessor in the place for which he was competing.) He wrote me that he had consulted the soloists of his band on the subject and that the universal opinion was that the use of the mouthpiece in the way mentioned by Lieutenant Wieser was certainly bad and should not be indulged in.

Lieutenant Wieser says: "Anyone who has *actually played* a trumpet or cornet can readily understand my views on this point * * *." True, and persons who are far more competent to pronounce an opinion on this point than is Lieutenant Wieser, condemn it.

As to the use of the cornet mouthpiece on the trumpet, there are two glaring objections to this: First, it changes the tone quality of the trumpet, depriving it of its brilliancy; second, it makes certain of the sounds false. Of course, if commanding officers choose to allow their instruments to be spoiled in this way, I have nothing to say. The fact that twenty-two out of twenty-four field-musicians of a regiment are guilty of such an act does not surprise me, as I know a good deal about the notions of ignorant musicians. If Lieutenant Wieser had said that these musicians had adopted tuba or trombone mouthpieces, I should not be surprised. That it is easier to play a cornet than it is to play a trumpet does not lie in the mouthpiece, as Mr. Mahillon has proved over and over again to men who wished to use both instruments, and for the same tube one mouthpiece will produce sounds as easily as the other. It would be easy to explain this, but to do so would require a very small excursion into the domain of that "theory" which Lieutenant Wieser seems to regard with such horror.

I should be glad to have Lieutenant Wieser tell me wherein "*our trumpet*" differs from any other trumpet in G. So far as I have ever heard or seen, there is but one definition for a trumpet, that is, from the instrumental point of view. It is an instrument having a very narrow tube, cylindrical for two-thirds of its length from the mouthpiece, then for the remaining third of the length, widening slightly in approximately the form of a narrow cone to the bell; and having also a mouthpiece in which the cup is nearly hemispherical, though slightly deeper than a true hemisphere, with the throat leading out directly from the bottom of the cup, so as to form a sharp edge at its intersection with the cup. Any instrument which fulfils these conditions is a trumpet; any instrument which does not fulfil these conditions is not a trumpet. If "*our trumpet*" conforms to this definition it is a trumpet, but the moment the

mouthpiece belonging to another instrument is substituted the result is a mongrel—neither a trumpet nor the other instrument.

As to War Department nomenclature in the matter of music and musicians, the less said of it the better. And the last order relating to the uniform of the Army, G. O. 169 C. S., has more of the same sort, as we find there “musicians *and* trumpeters” (the italics are mine). This is as much as to say that a trumpeter is not a musician. And perhaps the War Department is right, if what Lieutenant Wieser tells us be correct; but I hope for the credit of the army that it is not.

Lieutenant Wieser gives the following quotation, taken, I assume, from the Manual of Guard Duty: “To economize space the music is written an octave higher than the trumpet scale and is adjusted to the scale of the bugle.” If Lieutenant Wieser, or anyone else, will tell me what that means I shall be glad to be enlightened.

That time cannot be spared to have our buglers and trumpeters properly taught is the main cause of our calls being to badly sounded. I understand that as well as does Lieutenant Wieser.

This officer seems to object to my reference to instruments used in foreign armies, but why? Should we not be willing to learn from others? We study in other armies their organization, drill, equipment, arms, uniform, everything, in fact, from which we hope to derive information or ideas for the improvement of our own; why, then, as we are so far behind the rest of the world in everything that relates to music and musicians, even for the sounding of calls, should we not seek abroad the means of benefiting and improving our service?

Lieutenant Wieser’s reply to my criticism contains, as it seems to me at least, a semi-veiled sneer at theory as opposed to practice. Musical instruments are a subject well-nigh incomprehensible to one who knows nothing of the theory which governs them. In the army we constantly call theory to our aid for our strategy, our arms, our fortifications, our equipments, in fact, for everything; why, then, object to it for our instruments? Theory, after all, is but the condensed knowledge obtained by the study of much practice and many observations.

There are still in the service, among the old graduates of the United States Military Academy, some who remember my father, Professor Mahan. One day in the autumn of 1869 (I had just been ordered back to West Point), I was walking with him. I was then about twelve years younger than Lieutenant Wieser is now. I held, at that time, ideas quite similar to those which he expresses as to theory and practice. During my talk with my father I said, “I do not care about theory, I wish to be a thoroughly practical man.” My father replied, “My boy, try to remember this, that the only really practical man is the one who is solidly grounded in his theory.”

I know something about the bandmasters of our service; Lieutenant Wieser may be content to draw his knowledge from them and his com-

pany musicians. I prefer to learn from the Mahillons, the Fétises, the Gevaerts, the Helmholtz, the men who study, think and know, the men who from their vast learning can speak with authority, the men who from sound theory deduce sound practice.

"Loose-Leaf System for Record of Correspondence."

Colonel H. O. S. Heistand, Adjutant-General U. S. A.

The article by Capt. W. W. Russell, Adjutant of the First Infantry, Vermont National Guard, on the subject of the application of the loose-leaf system to army correspondence, which appears elsewhere in this number, brings up a subject by no means new. It has been considered by the War Department but not adopted.

It offers no advantage not possessed by the card system, and has the great disadvantage of requiring some sort of special device to hold the sheets, whereas the card file is so simple that it may be kept in a cigar box or cracker tin if necessary; the latter permits the use of the carbon sheet for indexing, briefing and endorsing and it also offers exceptional facilities for bringing together all the correspondence on one subject or pertaining to one person—the record of "additional," as it is called—which would by the necessary amount of handling destroy or mutilate loose leaves.

The loose-leaf system is excellent as a time and work saver in a small office where records are not frequently consulted, but in an office with a great mass of correspondence, and constant reference to records and handling of documents, the time and work saved in original receipt and recording, it is believed, would be lost afterward in the use of the records.

The present system of army correspondence and records, with its card index and document file, reaches pretty nearly, if not entirely, the limit of time and labor saving, combined with utility, and makes it impossible to agree with Captain Russell on his estimate of the loose-leaf system, but the interest the State troops take in the simplification of army business methods, of which his paper gives evidence, is extremely gratifying and gives one the hope that with the efforts of the citizen soldiery we may bring into our practice modern business methods, which will exact less clerical work in the field, and in this connection attention, it is thought, may with benefit to the service be directed to a paper which was published in the *JOURNAL OF MILITARY SERVICE INSTITUTION* for May-June, 1905, in which was presented a simplified system for the accountability of public property and funds.



A NEW MODEL KNAPSACK ON TRIAL IN THE RUSSIAN INFANTRY.

BY LIEUTENANT J. H. PELOT, C.A.C.

(Translated from *Armée et Marine*.)

THE question of easing the burden of the foot-soldier is the order of the day. Russia, after the experiences of the last campaign, has put up for competition a new model equipment for the soldier, and a model of knapsack for officers.

Among the solutions proposed in the competition opened in Russia, there is one which appears interesting because of the originality and newness of the principles on which it depends. It is due to Capt. Vladimir Nicolaiewitch Smérdown, at present instructor at the Alexandre School of Infantry, a distinguished officer of an inventive mind, already known for his work with bicycle companies, rolling kitchens and other questions of the present time.

Until now the foot-soldier's burden has always consisted of a knapsack, its sides rigid or soft, square or rectangular, carried on the back and attached by straps passing over the shoulders. The back and the shoulders carry the weight of the knapsack, which, pulling back, compresses the chest and gives a man the temptation to bend forward.

The original idea of Captain Smérdown is to distribute the weight equally in front and in rear, in order to permit a man to walk erect. Besides, he arranges to carry the load on different parts of the body, and the ingenious dispositions permit one to relieve at will any part of the body of a portion of the load, which gives these portions an alternative resting place.

In the kind of equipment proposed, the man carries the knapsack slung over the shoulder, from the right shoulder to the left hip; and from the left shoulder to the right hip his overcoat rolled, in the rolls of which are carried a wallet and a shovel.

The back part of the knapsack constitutes the knapsack proper; the

front part is a cartridge-belt (or bandoleer) resting diagonally across the chest.

The waist-belt constitutes a second cartridge-belt. The weight of the knapsack and of the coat is carried normally on the shoulders, which are equally burdened. But it is possible to relieve the shoulders alternately or simultaneously by placing the weight on the hips. For this purpose the knapsack, like the wallet wrapped in the coat, has a clasp placed in such a way that, in hooking it on the waist-belt, the weight will be carried by the latter. An ingenious system prevents these hooks restraining the body. Another detail permits air to penetrate between the knapsack and the back, in order to assist perspiration.

The knapsack roll and the overcoat roll are loose and should not be tightened. The soldier can put on and take off this equipment very quickly.

REMARKS.—In this arrangement, when the overcoat is worn, the shovel is carried diagonally across the back on the knapsack proper on which it lies, and to which it is held fast by an open pocket and two straps; the wallet is attached to the waist-belt by means of the hooks above described.

LESSONS TO BE LEARNED BY REGIMENTAL OFFICERS FROM THE RUSSO-JAPANESE WAR.*

BY CAPTAIN ASHLEY W. BARRETT, SIXTEENTH MIDDLESEX (LONDON IRISH) V.R.C.

INTRODUCTORY.

THE Titanic struggle on land and sea between the Russians and Japanese is characterized beyond all warfare that has preceded it by the vastness of the hosts engaged and the employment on a large scale of the most recent implements of destruction. To the student of war it must long be replete with interest, for he will find every phase of conflict represented. He may study the crossing of a river in the face of an enemy entrenched on the opposite bank. He will see a first-class fortress besieged throughout a year by sea and land, and the mountains and plains of a large territory over-run by a multitude of armed men, fighting battles of many days' duration. He may study dashing cavalry raids on the largest scale, wide enveloping movements, and every phase of night operation. If the student be a regimental officer he will best draw lessons by grouping his material in some logical sequence. He will study the two fighting nations. Then his attention will be directed to their troops, armaments and equipments, and their methods of fighting but although the larger questions of strategy and politics lie somewhat outside the scope of his present enquiry, he should not ignore them.

THE RUSSIAN AND JAPANESE NATIONS.

The mighty Slavonic race outnumbered by three to one its diminutive Japanese enemy, yet it contained sources of weakness which pre-ordained its failure despite that virtue which is said to lie in big battalions. The Russian people are ignorant, negligent of sanitary matters,

*Extracts from the "Q" Club Prize Essay of 1906, *Journal Royal United Service Institution*.

slow, long suffering, with such endurance as is shown by the beaten hound, drunken and corrupt; but yet with a traditional reverence for their "Little Father"—the Czar. The Japanese are educated, the majority being able to read and write, cleanly in person and habits, quick to move, stoical in their capacity for bearing pain, as shown by the frequent absence of anæsthetics for minor operations, abstemious in food and drink, and without reproach in regard to their mode of handling public funds. The spirit of the people is well illustrated by the refusal of a Japanese lady to receive her husband who had preferred to surrender rather than to die. The spirit of an army reflects that of the nation which produces it, and the Shintoistic creed of Japan has produced a nation of warriors. To a Japanese his Emperor is as a god, who must be implicitly obeyed, and for whom if need be life must be given. Every Japanese is said by Kirton in the *Journal* of the R.U.S.I. to be a patriot eager to serve his country in fighting Russia. To the higher officer it was no disgrace to learn the secrets of Port Arthur as a hair dresser in a barber's shop. To the peasant it was honorable to carry supplies through Korea for a pittance of 1½d. per diem, with his rations and uniform.

RUSSIAN OFFICERS.

The Russian officer is brave, but dissolute, vain, badly instructed in military matters and corrupt. An officer, for instance, boasted to a military attaché of the profits he had made out of money provided by Government for the horse rations of his squadron. By its lavish distribution of honors, the Russian authorities lessened the value of their inducements to deeds of merit, and their medals became of small account. This was shown by the naïve remark of an officer to a military attaché: "Our Government really ought not to be accused of extravagance in giving medals, because there are still a great many officers who have not yet been decorated."

JAPANESE OFFICERS.

The Japanese officer is temperate, receptive of Western ideas, well taught, and ready to sacrifice himself to his ideals. For example, the officers on a Japanese transport captured by the Vladivostok cruisers committed "hara-kari" to avoid surrender. It is also recorded that officers were known to attach Shimose bombs to their belts and leaping into the Russian trenches to perish with their enemies. It is also said that they would swim with torpedoes at night for the purpose of destroying with more certainty an opposing ship. The Japanese officer possesses to the full those soldierly traits which commend themselves to the Western mind. He shows a *suaviter in modo* under hardship which lessens the friction of military life. He carries out instructions from a superior zealously, and does so, let it be noted, without destructive criticism. He is filled with Bushido spirit of the old samurai, which teaches him to seek death in serving his Mikado, and to look forward to happiness in the shades when, by gallant deeds, he has won the worship of posterity and secured honor to his family. Diligent in the study of his profession, he carries a leather dispatch case on his belt, containing maps, paper and sketching materials, which are frequently made use of. Like most Orientals, he has a capacity for hiding what he does not wish to reveal, and the reticence of officers in regard to military matters is, indeed, an object lesson to many of our European soldiers. Gen. Sir Ian Hamilton notes that on meeting a Japanese company officer he would appear ill at ease and glance cautiously around lest any field officer should see him talking, although he might be only professing ignorance of well-

known matters. If met on the hill-tops the same officer would be quite cheery and chatty, though always guarded. The author of "The Siege of Port Arthur" speaks with approval of the unostentatious manner of living practiced by company officers, who fared as their men did and lived with their companies. As to whether this be in all ways good is open to question, inasmuch as to his valet no man is a hero, and influence may be impaired by over much familiarity. It would seem that the Japanese officer shows a certain trans-atlantic ingenuity in adapting means to ends which doubtless makes for success in the business of fighting. For instance, it is noted in the *R.U.S.I. Journal* that the transport officers would number the faces of their Korean coolies, who otherwise looked much alike, painting on the figures with some indelible, non-irritating pigment; also that the cavalry officers devised and used an ingenious field farriery kit contained in two boxes on pack horses. In one were tools, nails, shoes, etc., and in the other was charcoal and a flexible tube. The bottom of the latter box was movable, and thus a bellows was extemporized so that the charcoal put into a hole rapidly scooped in the ground could be made incandescent and a cast shoe speedily replaced. The foregoing observations concerning the commissioned ranks of the combatants suggest that, given courage and physical training in officers, their value as fighting men will be proportionate to the intelligence they show in—

a. Carrying out the orders and intentions of their commanders, who, owing to wide extensions, are unable to exercise personal supervision.

b. In learning from and not despising the enemy. The Russians despised the Japanese, and, wilfully blinding themselves to their fighting efficiency, courted the disasters which overtook them. The Japanese intelligently studied European methods for twenty-five years, and at times improved upon them.

RUSSIAN RANK AND FILE.

The rank and file of the combatants reproduce the virtues and vices of their commanders. The Russian men are powerful, good marchers, and until recently they were accustomed to cover the 4500 miles to East Siberia on foot. They are disciplined to hold on tightly to their trenches in spite of being heavily pounded. They are brave and persistent, as shown at Liao-Yao, when a regiment of the First Siberian Army Corps, which had just lost 50 per cent. of its strength, renewed the attack without hesitation on the command. They are, however, slow, unintelligent, and untrained in musketry, signalling, reconnaissance and reporting.

JAPANESE RANK AND FILE.

The Japanese soldier is the fittest of the fit, and is well trained in running and marching. In practicing the attack after the battle of the Yalu a Japanese company was seen by Gen. Sir Ian Hamilton to sprint 400 yards at a stretch. This evidences fitness, although so lengthly an advance conduces to loss, and does not accord with the teaching of our drill book. In carrying out peace manoeuvres near Tokio after the conclusion of the war, an infantry company, marching in column of route, on receiving a whistle and hand signal from their commander, was seen by Colonel Coddington to instantly and silently extend at racing pace along a line at right angles to the direction in which it was previously moving. The Japanese is a trained athlete, a skilled climber and a good swimmer. At the crossing of the Yalu many of the first army found it necessary to prove themselves such. He is cheery under misfortune and runs with a smile to certain death at the call of duty, as at the night

attack on Three Rock Hill, when 200 men were called for and at once volunteered to climb the walls of a village in order to burn out two companies of Russians. They were nearly all shot down within a few minutes after their entrance. (Report of military attaché.) He is a nimble and intelligent fighter. At Pitsewo a company of Japanese attacking Russian entrenchments were met by a withering fire, and the survivors, immediately scattering on their own initiative, doubled round to a flank so as to enfilade the defenders. (Report of military attaché.) As to musketry, he is less perfect and compares to his disadvantage with the skilled Boer marksman. It was noted, however, that independent fire was generally used by the Japanese, while the Russians adhered to the old-time volley firing. In signaling he is imperfectly educated, but this applies with more force to the Russian troops, and will be referred to later on. In reconnaissance and reporting he is better trained than the Russian, though this is but scanty praise, inasmuch as the latter quite neglects these important duties. He is rendered more efficient by being provided, according to a writer in the *R. U. S. I. Journal*, with excellent field glasses and maps—useful aids in these days of wide extensions and long-range weapons.

CAVALRY.

This arm was badly represented in the armies of the combatants. The Russian cavalry was numerous and well mounted, but its reconnaissance was a failure and its reports were regarded by the higher commanders as being so unreliable that when, as at the battle of Vafango, they reported correctly to General Stakelberg's Chief of the Staff the Japanese turning movement on the Russian right, which eventually drove the latter northwards towards Mukden, their reports were ignored, and Stakelberg sent his reserves to reinforce his left, where the pressure was comparatively light. In place of using their cavalry to collect information, the Russians would carry out a reconnaissance in force, admittedly a costly and dangerous proceeding, because made without proper knowledge of the enemy's strength, and doubtless the war fog in which the Russians moved in Manchuria was in great part brought about by the ineffective use and defective training of their mounted troops. The Japanese cavalry was poorly mounted. Had it been better horsed, their victories would have been attended with more striking results, and, in the opinion of some of the military experts with their armies, they would have been in occupation of Mukden by August, 1904. It is said, however, by the *Times* correspondent that their Government is now making efforts to improve the horses in Japan by gelding all two-year-old stallions which are not passed by official examiners. The chances for the use of shock tactics by the mounted troops in Manchuria were few and far between. The mountainous character of the eastern part of the country, the dense crops of kaoling ten feet in height which covered the closely cultivated flat lands in the neighborhood of rivers, the broken muddy roads, and the steadiness of the infantry on both sides all combined to prevent such.

The criticisms upon the cavalry operations, contributed by General Négrier to the *Revue des Deux Mondes*, are worthy of all consideration. The work of the Russian cavalry he regards as disappointing in every way. They numbered 17,000 well-mounted troops; but if the function of cavalry be to reconnoiter, to cut communications, and to fight, they can be considered only to have failed persistently. Their reconnaissance was checked in all directions by the small detachments of all arms with which the Japanese surrounded themselves. These sheltering in the

countless Chinese villages, whence for a reason shortly to be mentioned, they could not be dislodged, proved an impenetrable barrier to the enterprise of the Russian mounted troops, and behind their cordon of small detachments the Japanese armies maneuvered unknown to their enemy. The Russian cavalry were armed with carbines without bayonets, and were accompanied by horse artillery. On encountering Japanese mounted troops the latter would fall back upon the village occupied by their infantry, and it was found impossible to dislodge them with the ineffective guns carried by the Russians. Nor could the latter, when dismounted, push home their attack owing to the absence of bayonets. If by good fortune a Russian reconnoitering detachment passed through the cordon, its retreat was interrupted and the information collected was meager. Useful work on a few occasions only was done, and then reconnaissance was carried out by small patrols moving by night and hiding by day. In regard to the Russian attempts to cut communications, no favorable account can be given. Mishchenko's raid with 5000 cavalry and 3 H.A. batteries in January, 1905, best illustrates the Russian difficulties and failures. The Japanese were then near Mukden, and it was felt that their long line of communication, stretching south to Niuchwang, rendered them specially vulnerable. The raiding force, having crossed the frozen Hun-Ho into Chinese territory, moved south to the rear of the Japanese left. A detachment was sent to the east to demolish the railway supplying the Japanese, and retired after having destroyed 500 yards of rail, which was subsequently repaired in a few hours. The main body attacked Yinkow Station, in which were 1000 Japanese infantry, on whom they made no impression, and by whom they were repulsed. A few stores were burned, and the Russians retired, having achieved practically nought, beyond demonstrating the disadvantage at which they were placed through the absence of effective guns. In regard to the use of cavalry during the combat, General Négrier's remarks are forcible and to the point. The extent of ground over which a modern battle is waged is so vast, as when at Mukden troops were engaged on a front of 100 miles, that infantry general reserves are unable to be moved with sufficient rapidity to repel a sudden enveloping movement. This can be dealt with only by utilizing the mobility of the cavalry, and in this direction lies their proper *rôle*. Thus, when at Mukden the Russian right was turned by Nogi's army, and a powerful Japanese detachment penetrated a gap in the Russian front, the Russians might still have held their own had they used part of their 17,000 mounted troops for repelling the flank attack and a portion for stopping the gap.

It is interesting to note how reconnaissance, raiding and combat were carried on by Japanese cavalry. In regard to the first, reports and information are said by General Négrier to have been little demanded from the mounted men; these were transmitted more surely by an elaborate system of espionage carried on by Chinese and Japanese trained for this during previous years of peace. Their raids—as when their cavalry cut the railway to the north of Mukden—were more effective than those of the Russians, because the latter had not surrounded themselves with such protective detachments as those previously spoken of. In action their cavalry played its proper *rôle*, as when at Te-li-ssu a body of 2500 mounted men moved rapidly to the rear of a Russian force which was turning the Japanese right, and, attacking them in reverse, snatched victory from what threatened to be a defeat.

The lessons that General Négrier and some other authorities would urge from the foregoing may thus be summarized:

- a. Cavalry should be regarded as mobile infantry, and should be

armed with infantry rifles and bayonets. The lance should disappear, to be replaced by the sword; and at once and for ever abandoning their mounted attack, save when in pursuit of a beaten foe, they should learn to fight effectively on foot.

b. The rifle should be carried in a spring clip hung on the left side of the saddle, so that the man may not be injured by it if he falls. He should be clothed in the South African slouch hat as shelter from sun and rain. He should wear loose trousers, gaiters and strong boots for dismounted work, and should carry a rain-proof woolen poncho on the front of his saddle. All this accords with the orders issued by Napoleon to his cavalry in 1812.

c. To mounted troops should be attached batteries of light horse artillery, and also portable howitzers firing heavy H.E. bombs, so that their enterprise may not be checked by every paltry village which harbors the enemy.

d. The work of reconnaissance should be relegated to a small number of highly trained officers and men specially fitted for so difficult a task, and mounted on the best horses procurable.

e. The bulk of the cavalry should make it their business to maintain contact with the enemy, to operate on his flanks and rear, to rapidly reinforce threatened points, to engage in attack or defence armed with the infantry rifle and bayonet, and to complete by mounted attacks the discomfiture of a beaten foe.

A reference to "The Hand Book of the Russian Army," published in 1905, and prepared by the General Staff of our War Office, shows that the drastic changes foreshadowed by General Négrier have now been in great part adopted by the Russian cavalry. In each cavalry regiment there are now two groups of specially trained men. One consists of sixteen detached men under an officer trained carefully in reconnaissance. The other of two officers and sixteen men trained in destroying railways and telegraphs and in establishing telegraphic and other systems of signaling. Without doubt this method of specializing will contribute to efficiency in the future. The whole of the Russian regular cavalry is now armed with the rifle and bayonet, the combined length of which is 5 feet 5½ inches, and the total weight nine pounds. The rifle is slung across the back, muzzle upwards, the butt being behind the right hip. A curved sword weighing 2¼ pounds, and with a blade 34½ inches long, is also carried, with a scabbard for the bayonet attached to the outside of the sword scabbard. Each man carries forty-five rounds S.A.A., and a further 180 rounds per man are carried in the regimental transport. The lance is carried only by the front ranks of certain regiments, and by them only at ceremonial parades. The Cossack cavalry are armed similarly to the foregoing, with the exception that the bayonet is not carried, and that on active service a seven-pound lance, nine feet long with no pennon, is carried by the front ranks.

In regard to the method of using cavalry in the future, the teaching of the "Tactical Notes," published by the general staff of our War Office, and based on the reports of our military attachés, is not very decided. In the opinion of our authorities, this would seem to be still *sub judice*, and the time to be not yet ripe for a definite pronouncement. They admit the infrequency of shock tactics, although the terrain in Western Manchuria was not always unsuited to such; but they attribute this to the absence of Russian dash and to Japanese deficiency in men and horses, rather than to the stopping power of the modern magazine rifle. The impression on a student of these "Tactical Notes" is that our experts still attach importance to the cavalry charge, and are not yet

willing to transform the cavalryman into the mounted infantry soldier. Manifestly it is not for one whose knowledge of mounted tactics is theoretical only to venture to express an opinion when experts are at variance.

ARTILLERY.

The lessons taught by the artillery in Manchuria are plainly set forth in the reports of various military attachés and in the comments of various English and Continental experts.

In Regard to the Value of Artillery Fire and to its Employment.—The artillery preparation no longer marks the initial stage of the fight. The duel between the opposing guns will not necessarily precede the infantry attack. The foot soldiers will advance and the guns will support them, firing, when able, upon the enemy's artillery and his troops, whether entrenched or in the open. The guns when overpowered will, if they are wise, lie silent until they find a target. The need for such silence was well shown at the Yalu, when the Russians, by continuing an unequal artillery duel, were deprived of the weapons which would have been invaluable at a later stage of the battle; and, on the other hand, it is said by Captain Soloviev that a Japanese battery, when the Russians had got its range, would become silent and steal quietly away to open from some new position, leaving a few beams lying on broken gun wheels to simulate it in its former position. It is interesting to note the small damage resulting from the dust and din of bursting shrapnel. By one observer it is computed that not more than 7 per cent. of all the casualties were caused thereby. As to its effectiveness, however, in subduing fire from the trenches and in causing the defenders to hide their heads there can be no doubt, and at times it caused heavy loss to formed bodies of troops in the open, as when at Mo-tien-ling a Japanese battery, firing at 3000 yards upon a Russian battalion in close formation, caused 300 casualties in a few minutes. The Japanese were no believers in breaking up a battery, which, with its six guns, formed their fighting unit, but as a rule their batteries were not placed in contiguity when in action. Thus they were enabled to deliver fire upon the same objective from various directions, and concealment was facilitated. The Russian Captain Neznamov urges the folly of massing batteries in conspicuous positions on a sky-line, although at times the Japanese would assemble their guns with excellent results, as when at Yalu they grouped their six batteries of howitzers and masked them on the Island Kintei, whence they sent a crushing fire, and again at Te-li-ssu on the 15th of June, 1904, when their eighteen batteries formed the pivot of the turning movement which drove General Stackelberg from his defensive position.

Concerning the Guns.—It is remarked by the *Times* correspondent (an experienced and careful observer) that the Russian field-guns out-ranged those of their enemies, and threw a 14½-pound projectile, as against the 11-pound shell of the Japanese. Their rate of fire he also observed was so much greater than the gunners of the latter, unable to reply to the distant guns which showered shrapnel upon their emplacements, would hide in their shelters until, with loss of time and life, they had moved their guns forward. The india-rubber buffers and springs used by the Russians for checking the recoil of their Q.F. guns were apt to give way under the stress of heavy firing, and in this respect and also in regard to the rapidity with which fire could be maintained, they are believed to be the inferior to the latest gun in our own service. The value of the long-range Q.F. guns was made evident throughout the campaign; but a gun to possess these qualities must perforce be a

heavy gun, and the factor determining its possible weight was shown to be the quality of the team which moved it. The Russian horses are strong; those of Japan are small and weedy. The guns of the latter were therefore inferior to those of their enemy, and had not their gunners shown more dash and skill they would have suffered more severely. The absence of good horses doubtless prevented them from using horse artillery, and so, by lessing the value of victory, protracted the war. It may be rightly held that the weight of the gun should be limited only by the possibility of moving it in effective support of infantry, the speed of which when engaged in the attack is less than in former days.

In Regard to the Gunners.—The value of the man behind the gun was again demonstrated up to the hilt. The Japanese gunner was evidently more practiced, and perhaps more accustomed to see smokeless powder used at home in his artillery maneuvers. He showed himself, at any rate, an adept at ranging, firing accurately, and hiding his gun positions. Captain Soloviev speaks admiringly of the way in which he would sometimes find his target at the first round without ranging, and also notes that he has seen Japanese shells literally following the movements of a party of mounted infantry scouts going along a ridge at full gallop, with the result that twelve men and nineteen horses were quickly put out of action. The more accurate shooting of the Japanese doubtless came from their previous training, whereas it is said that the only instruction given to many Russian artillerymen was that imparted verbally in the railway carriage *en route* to Siberia.

The Direction of Artillery Fire.—From the Japanese mode of directing their artillery fire something may be learned. Their officers would not, so it is said by a military attaché, remain sheltered under cover, but would be posted in such positions, not necessarily in immediate proximity to their guns, as would enable them to observe and direct their fire. From an observation station on some neighboring hill messages reporting results would also be sent down to the O.C. the battery, either by telephone or flag signal. With the advanced attacking party also would move an artillery non-commissioned officer with two or three orderlies, who contributed to keep the O.C. the Battery *au courant* with the wants of the infantry.

The Co-operation of Guns with Infantry.—The importance of co-operation between guns and infantry was made evident. The Japanese would move their artillery up in close support of their attacking troops, and would not hesitate to take the risks attending such action in order that they might throw their shrapnel into the trenches till the last moment. Their fire, guided by the flags in the Japanese firing line, was delivered finally at 2000 yards or less, and it was no unusual thing for the O.C. a battery to be requested by the O.C. an infantry company to throw a few rounds into some indicated part of the enemy's lines. This intelligent co-operation between infantry and artillery was so evident to one of our military attachés that he was impressed with the importance of attaching batteries to brigades to serve under the orders of the brigadiers thereof.

The Supply of Ammunition to the Guns.—The difficulty in effectively supplying ammunition to the battery in action was often manifest, and thus may be explained the rarity on both sides of rafale fire. Owing to the shrapnel searched ground in its rear the ammunition wagons were often placed at a distance of 500 yards, and this necessitated laborious hand carriage, and frequently prolonged silence on the part of the guns.

Heavy Guns.—For the first time in the history of war new arma-

ments and ammunition have been used on a large scale, and this renders the Manchurian campaign instructive to students. The terrible roads, abounding in mud holes three to four feet deep, prevented much movement of heavy guns. These were, however, largely used by the Japanese during the Port Arthur siege, and they delivered indirect fire, directed from high observation posts, upon the Port Arthur battle-ships. So accurate was, then, the practice that the *Poltava* was hit twenty-one times. They were also employed at Liao-yang, being carried north on the Manchurian Railway.

H.E. Shells.—Shells loaded with H.E. proved very useful to the Japanese for ranging, owing to the conspicuous cloud of dust raised when bursting. The moral and physical effect caused by their explosion in the trenches was so great that a Japanese artillery-officer considered that 50 per cent. of the ammunition carried by a battery should be of this nature. The Shimose shells, however, were less destructive to troops than those loaded with shrapnel, because their steel casings through the sudden violence of the explosion were scattered in dust-like particles. They were, nevertheless, much disliked by the Russians, owing to the suffocating poisonous vapors evolved.

Explosive Used.—The Russian explosive produced less heat and destruction of the guns than that used by the Japanese or ourselves, but by causing a light brown smoke at the point of discharge somewhat revealed the gun positions. The Japanese explosive was quite smokeless.

Howitzers.—The positions of the howitzer guns were well hidden by the Japanese. They would dig a hole in the ground for an emplacement, and in front of the gun would set up a few trunks of trees connected by cross pieces, on which green boughs could be attached. Thus the source of the terrific howitzer fire from the Island Kintei, in the River Yalu, when the guns and trenches of the Russians were overwhelmed, was absolutely invisible to the latter.

Telescopic Sights.—Objections were urged by the Japanese artillery-officers against the use of telescopic sights, which were not attached to their guns. They were said to be useless when fog or smoke prevailed, but such conditions must lessen the value of artillery fire at any time. The cost of such appliances was also quoted as an objection, but this is an argument that can hardly be sustained. Others laid stress on their supposed tendency to favor long range firing, and so to lessen enterprise in closely following up and supporting infantry. The Japanese gunners, however, are as little likely as those of any nation to be influenced thus adversely.

Horse Artillery.—The Japanese had no horse artillery, and they failed in consequence to reap the proper fruits of victory. Pursuit of the beaten enemy devolved upon their infantry, exhausted by continuous days of fighting, and the benefit they would have derived from fresh reserves and mobile artillery was manifest after most of their victories.

Wooden Mortars.—The Japanese made large numbers of wooden mortars in their Dalny workshops, and used them in their advanced trenches. They were thus constructed. A pine tree log, four feet long and about twelve inches across, was sawn longitudinally, and each half was gouged out so that when the halves were brought together and lashed around with cane, in the use of which the Japanese are proficient, a hollow cylinder, which would admit a four-inch bomb, was constructed. A wooden breech-block was then cut and recessed so as to receive the end of the wooden cylinder, and into the base of the latter a radial vent-hole was bored. The mortar complete weighed seventy pounds, and could be carried by two men. Fired at an angle of 45° it would throw

a projectile 400 yards with a propelling charge of 2 ounces black powder. The bombs were loaded with H.E., armed with time fuses, and when exploding in a trench created much noise, smoke and dust, while bodies of wounded and dead men were seen by a military attaché to be hurled to a distance of many yards. It may be worth our while to experiment in this direction with light steel or aluminum portable mortars.

Hand Bombs.—Hand bombs were much used by both combatants. Those of the Russians were spherical and fired with percussion fuses. Those of the Japanese were made in large quantities at their Dalny workshops from old provision tins. They were cylindrical, eight inches long and two and one-half inches diameter, loaded with H.E., and fired with time fuse burning seven seconds only, so that the Russians might not have time to return them. Their shape enabled them to be thrown to a greater distance than those of the Russians, and a range of thirty to forty yards is said by one of the military attachés to have been often obtained.

Roller Bombs.—The Japanese also similarly made roller bombs. These were cylindrical, mounted on two wooden wheels twelve inches in diameter, connected up with wires by which they could be fired electrically, and could be pushed thirty yards with long bamboo rods from behind cover towards the Russian trenches. A military attaché saw successful experiments with these at Dalny, but did not see them used in actual service.

Flags and Telephones to Direct Fire of Guns.—Flags were used by the Japanese to direct the fire of guns, and were waved from an observation station on a neighboring height. The signals thus given were very limited, being confined to "Right," "Left," "Over," "Short." Visual signalling indeed is almost unknown, both among Russians and Japanese, and it is strange that in this art the Japanese were not more advanced. Telephones also were used, but were not always audible in the din of battle, and the overhead and ground wires leading from them to the batteries were frequently broken down by passing troops. (Report of military attaché.) Evidently the introduction of the telephone, valuable though it be, has not done away with the necessity for good instruction in the various modes of visual signalling.

Shields to Guns.—Shields to guns do not seem to have been much employed by the Japanese, although some of their officers admitted that the moral and physical support which they would have afforded by sheltering from shrapnel would have proved valuable. They doubted, however, if the additional weight thrown upon the horses would not have counterbalanced their advantage, but it cannot be conceded that the weight of shields would have prevented guns from moving at the very moderate speed of infantry. Captain Vincent, however, notes that Japanese gunners of their own accord extemporized wooden shields, and that the men valued them highly.

(TO BE CONTINUED.)

REFLECTIONS ON THE CLOTHING AND EQUIPMENT OF
THE GERMAN ARMY.*

BY MEYER, CAPTAIN AND ADJUTANT, FORTY-SIXTH INFANTRY BRIGADE.

(Translated from *Annals for German Army and Navy* by Lieut. F. J. Behr, C. A.,
for MILITARY INFORMATION DIVISION, G. S.)

II. ON THE QUESTION OF UNIFORM.

THE Boer, as well as the Japanese, War has demonstrated clearly that most uniforms of all the powers must be changed, *i. e.*, simplified. Nothing is ideal nor suitable to all cases; but that they conform to as many circumstances as possible, can be done, must be done, in fact. This is the duty of the state not only toward itself, but also toward the individual. Therefore, the "very first" thing to consider is how it must be put up in order to render it as "practicable in every respect" as possible. Only then may one consider how to make it beautiful and tidy, and pattern it according to tradition.

If I consider now, when is the soldier's uniform practicable, three main points must be considered decisive: weather, visibility and comfort, *i. e.*, the soldier must be able, on the one hand, to endure in it often rapid changes of heat, cold, aridity, moisture, in the day time and night, and at all seasons of the year; on the other hand to be as difficult to see as possible at all distances in the various arrangement of light and shade and the most manifold backgrounds. Trials have been undertaken in this direction in most states as well as by us. A "complete description" like the writer realizes—a really practical uniform—does not lie within the compass of this treatise, which, moreover, is very difficult to express in words. Such a thing would have to be shown by a model. Only general points can be given. Unfortunately, I am not in a position to make experiments and lay the models before the War Department.

Underwear and uniforms must be pervious to air and perspiration, at the same time still sufficiently watertight, collar and coat normally to be closed high up, and to be worn quite open like a sailor's blouse. The present cut of our coats does not permit the turning up of the collar. Now the latter will have to be fitted "very exactly" in order not to be injurious and not to look badly. This requires a great deal of time, which, in mobilization, can be applied to better purpose. They can only be worn open, not turned down, just as the coat can be worn only when "standing." But "thus" it appears neither tasty nor orderly and military, and can better be arranged otherwise.

The material and pattern of the huntsmen and mountain-climbers should be taken as a model. Coarse woolen stuff spotted, checkered, prime-colors gray-green, with a sweep of brown-yellow, would have many advantages, and our eye would soon accustom itself to think it military, instead of the "one" color in material and facings existing

*Concluded from July Number.

hitherto. An endeavor should also be made that the coloring of all material be effected as much as possible so as to avoid a dangerous aggravation of wounds by means of shreds which gained entrance; also that the dye, softened by rain, cannot possibly seriously endanger a wound situated underneath it. A competition among the German cloth and dye manufacturers would, perhaps, not be impracticable.

The above-indicated colors, individually and in combination, are those which have been ascertained as the least conspicuous in light and background trials by nearly all the powers up to the present. Only Denmark appears to incline more to the blue-gray. A speckled material like a partridge, or the back of a hare in winter, likewise has the great advantage above the single-colored that it is more economical, appears new longer, for spots and patches are decidedly less conspicuous.

It would perhaps be worth while to line the overcoats white, in order to be able to wear them wrong side out in the snow. In that case white helmet covers would also have to be taken along.

Each uniform should be comfortable, *i. e.*, more comfortable than hitherto, since the soldier can then use his arms to better advantage in all positions of the body, and husband his strength more (breath, lungs, heart). Tightness, especially over the joints (arms, knees, etc.), wears out our muscles and fatigues them prematurely. Naked I am best able to perform gymnastics, fight and run. But since we do not perform our duty in this manner, the clothing (cut and width) should be put together in such a manner as to hinder us as little as possible." "Thus" the fitting would proceed more rapidly, which would be a great advantage to training on account of the short service and, as already mentioned, in case of mobilization. The civilian would then also again accustom himself more readily to the unfamiliar uniform.

If I have finally found an "up to date," practical soldier's uniform as regards material, color and cut, I must still ask myself how to effect the insignia of rank, how the distinction between individual arms and regiments? In both cases the answer can but be: as small and as inconspicuous "as possible." This has been acknowledged on nearly all sides. War, maneuver and sham battles have shown and show all along by numberless examples what small causes often bring about great consequences (*e. g.*, 17. II. 00 French against Cronje). Much could be written on the subject, as has already been done, so that after all it must be assumed every expert is convinced of it, that we are not doing right in taking the field in the same numerous, iridescent pomp of colors of the different uniforms as under old Frederick, or 1870.

For that reason badges, ribbons of orders, adjutant's sashes and helmet cords must also be prohibited with the service uniform. At most, badges of honor merited in war should be "indicated" by quite small, insignificant ribbons. Also the standards of the staffs should and must be more often rolled up or carried low. Already, without that, the latter disclose themselves often prematurely to the enemy's sight and tell him, by their position, more than is good. I would rather have an adjutant be able to fulfil his errand somewhat later. Here, likewise, of two evils I can but choose the less.*

Those who maintain that the soldier in the field would plunder on days of rest if he had nothing to polish on his uniform, I reply: exact requirements of "a higher degree" as regards the faultlessness of his arms, keeping his clothing dustless and spotless, and as regards cleanliness of the entire body, and he will have plenty to do.

*Compared to earlier times, better field-glasses, as well as smokeless powder, lighten the task of locating the staffs as they are.

For laymen who may read these lines—and the interest on all military questions with our men in arms is truly great—I will illustrate but cursorily by an example. The enemy's infantry endeavor to obtain possession of an utmost important defile. It finds it occupied, receives a well-directed fire from an advantageous position, can see and make out but little, therefore takes for granted that infantry or scouts are in front of it, must develop, await artillery, loses time. But in the meanwhile the infantry and artillery on this side come up, and now the pass is lost for the enemy. (Again 17. 11. 00 French against Cronje.) Our cavalry, uniformed almost exactly like the infantry, equipped with the best fire-arms (also machine guns) and trained as "marksmen," had received the enemy and arrested him. He did not dare to push forward "with energy into the dark."

How different the situation and his courage had he clearly seen that—but—cavalry had occupied the position there. Cuirassiers, ulans and hussars are "so easily" recognizable. Immediately the enemy knows, you can, you must, push ahead more rapidly. Their firearms, less training in shooting, anxiety for the timely reaching of the horses, permit it. The troop naturally inferior when fighting on foot is, in addition, also unmasked and disclosed to the enemy by the uniform, instead of endeavoring to hide its weakness. For similar reasons did the militia receive the head-dress of the line, helmet with spike instead of the shako (czako), in order not to infuse confidence in the enemy, as it were, while still a great way off. "Just come on confidently; here are second-rate troops, older men, unaccustomed to shooting." The "less" the enemy sees and learns about us, so much the easier will we have it. Great things are composed of trifles.

There is nothing new in all of this, but it is so hard for us to make up our mind to get rid of the antiquated ways of tradition, and when it does happen, it takes place piecemeal. This does not pain the eye nor the sensibility so much.

A small instance: the slings (schleppriemen) of the cavalry belt, following the example of other powers, have been acknowledged for years past as quite unnecessary. In spite of—let us hope!—previous thorough? tests, the lower ring was only pushed "up" on the "new" cavalry saber, the slings "shortened," in order—after two years' trial—to have become so wise, that the latter can be omitted "entirely." But the lower ring on the beautiful "new" scabbard could not, unfortunately, be made invisible.

In this the deciding authorities have merited just as little praise and laurels as but recently with the blackened saber scabbard, which only after a "few weeks" has been acknowledged as entirely of no use.

If we advance quite slowly in many respects with innovations, it was "certainly" too rapid here. Of the much-vaunted and bitterly necessary economy little was seen, either against the state or the poor officer. Let me add in passing, it is really hard that he receives no compensation when changes of uniform have been found necessary and ordered. The permission to wear out the clothing is a limited one, and not always possible fully to turn to the best advantage.

Here let me presume to make an observation for the exalted Reichstag. Why has, as far as I am aware, no representative ever proposed compensation for the officers in a military bill for changes of uniform? Would this not have been just? Besides, such remuneration would have the advantage that when there is a question of "public money" the "Government" authorities would take more to heart than at present the "first weigh, then change," when one sometime appears to think: "lieu-

tenant, take care how you will stint yourself or pull it out of the old man, or borrow." The worth of money, the penny, appears to have been little appreciated in many places or to be quite unknown. What a pity!

Even as the different units of troops among each other must be rendered as invisible as possible and difficult to discern for the eyes of the enemy (field-glasses, balloons), so, naturally, must also the insignia of the officers, non-commissioned officers and musicians on the "service uniform." The Russia-Japanese, as well as the Boer and Southwest-Africa, Wars have also been instructive in this respect.

As the prosaic steamer and puffing locomotive displaced the poetic sailboat and the blowing postilion, so black powder displaced the glittering cuirass, and smokeless the sashes and other mementoes from the older chivalric times. Hence the officers also carry rifles or carbines in Southwest-Africa. Shoulder-straps, as well as chevrons (N. C. O.) disappear before the fight. But how is it, *e. g.*, in case of a "sudden" attack on the march, etc.? In this case the enemy recognizes the leaders and says to himself in truth, shoot these off first, who, like all elements, serve for the preservation of order. For those immediately under him the leader is already recognizable, up to a sufficient distance, by sight and carriage; for other soldiers by the finer material and cut of his uniform and boots, through a still always "somewhat" different weapon. Finally small, narrow insignia in blunt colors are naturally even as necessary as harmless. But we must entirely prefer the "most useful and best" to the beautiful and traditional! Certainly it is well if the man recognizes his leaders easily and quickly; but decidedly better is it still, that he keep them longer, or altogether, and on that account to see them somewhat less well.

Nothing is perfect. I must, therefore, of two evils choose the less. Naturally, the experiences in Africa or East-Asia are only to be transferred to middle Europe—in a sense; but we must profit by them.

Here I should like to urge again that surgeons and hospital attendants be uniformed, according to international agreement, as uniformly as possible in all civilized states, in order to make them "still more" distinguishable as non-combatants to the opposing troops than is done by means of the band with the red cross around the arm. "There," for once, the Hague Peace Conference could really do some good.

But "it goes without saying" that along with the service uniform the traditional and antiquated dress would, in a certain measure, further have to exist for church, parade, furlough and leave. I recognize entirely the great power and importance of tradition. The soldier "must" feel his self-importance and be able to dress tidy. Parents and sweet-heart "must" look upon him with pride. This is absolutely necessary! On that account is he also young and consecrated to the first line, to offer up his life for the fatherland. The warriors of all peoples and times adorned themselves and were adorned. This belongs to the profession.

Increased costs would scarcely arise. On the contrary, I believe a change of the kind indicated would produce economy. For parade and similar purposes the present supply of blouses, head-dresses, white trousers, helmet cords, plumes, sashes, belts, etc., would suffice for "years" to come. Fatigue-clothing and *litewka* could, perhaps, be omitted, since the service uniform would have to be "so" comfortable and suitable to the weather that it would suffice for gymnastics and fatigue-duty in summer and winter.

I should still like to refer to some trifles. Ulan and Hussars have

cords on the helmet and fur-cap. These cords were once, within the past ten years, discarded for field-service. Quite right! Then they were again ordered for this service. Why? Are the trees in the woods and on country roads better pruned now? do the cavalry get less entangled with the helmet cords now? does the head-dress with the scaled chain not stick fast any more? and finally, did not the dragoons and cuirassiers get along without these? For parades they can certainly remain; they are quite handsome and do not cost much. The helmets of the cuirassiers, with their long peaks in front and behind, are good cavalry helmets of days "gone by"; but for the cavalry of the "present time," who must also be skilful "tirailleurs," *i. e.*, scouts and marksmen on foot in the field, it is entirely unsuited. Let us separate—from this relic of a romantic time—for the service uniform. The vigorous horseman spirit must, and will probably, not suffer from it. On the contrary, cessation is retrogression! "Forward" is written on our helmet, and this is also the watchword in "every" line of business in the world. What is better always remains the enemy of the—once (!)—good.

Also the high boots; even the other boots of the entire cavalry themselves are too clumsy, and render a tolerably active deportment of the dismounted trooper an impossibility. High-laced boots up to the knees would, at all events, be better and more up to date in many respects.

There are also many trifles in the officer's uniform which could be improved, saved, rendered cheaper and regulated more practically, naturally, quite apart from the previously indicated service uniform of the future. But a few are mentioned: the slings, as mentioned, have been taken away from the men as "useless and cumbersome." The officer retains them ("even" for service in the field!). Again, why has the officer a belt beneath the blouse "and" the full-dress belt? A single belt over the blouse for the service uniform would replace both, would be cheaper, be fastened more rapidly in case of alarm, and would wear out the coat scarcely more than the full-dress belt.

Next a picture from the life of the lieutenant. Justly will he be so treated that, at the next maneuver billeting, no village cur will take a piece of bread from him if he does not lead his platoon up to the enemy as concealed as possible; if he does not utilize the smallest depression of the terrain and the smallest hill; if he does not throw himself recklessly into the dirt, even with inspection-coat on; in short, if he does not seek to avoid losses of "every" description, to steal upon the enemy, to surprise him, to deceive him. If the poor lieutenant does not act thus, then it is at least "Sir, where have you got your eyes? This costs blood, a great deal of blood in case of action! You destroy the most beautiful attack for me. On your account the umpire drove us back." Thus in peace, thus in small affairs. This "very exact" criticism condemns unconsciously "at the same time" "everything" gaudy, glaring, shining, bright, uncomfortable and differentiating in the service uniform (!) of the "entire" armed force on land and water. The more invisible the individual and the whole troop, the easier will be the guidance "to" the enemy, the less will be the losses, although the management and preservation of order will prove "somewhat" more difficult within one's own army. But, on the other hand, one would hardly order the individual columns to push forward into the terrain as concealed as possible and to disappear, because the leader would then oversee his own troops too little.

One may contradict me in detail. Upon the whole, one "must" agree with me. The examples of modern histories of war help essentially. Naturally, with the clothing the entire equipment, baggage should as-

sume the most inconspicuous color; at the same time, be arranged as comfortable as possible and contain but the most necessary; above all, much nourishment for man and horse, and ammunition for the insatiable firing-piece. If the knapsack does not appear tidy, it can be dispensed with at parade. The beautiful manual "carry arms" has also come into disuse, and our parades still appear strict and splendid. Experiments in reference to baggage and color for same are naturally long in duration.

In conclusion, let me make two digressions on close-related subjects:

Prussian-blue is retained as the color for our new and eminently good quick-firing field-guns, as well as for all vehicles. It is said to be the most invisible. Wonderful! Why did we wish to change our blue blouses into gray-green, or similar color? Wagons, wagon-covers, tents, "everything" the most invisible color!

Also, with permanent fortifications, one cannot be sufficiently cautious at cost of the beautiful and romantic, and to omit everything conspicuous, to have the flagstaffs and signal masts lowered as far as practicable, and only to have the most unavoidable display the color on holidays. These trifles also help the enemy—even in peace they are indices for his spies. I have made my own observations; for example, when one enters the bay at Kiel, the Elbe at Cuxhaven and the Kaiser-Wilhelm Canal. A vigilant eye on the few passengers on the large, and especially on the smallest, vessels of "all" nations, as well as on their crew and captains, would do no harm. Divers temptations offer themselves to the latter to go slow, to stop, in order to render feasible the taking of interesting photographs and sketches. If the pilot is already on board, all this will be somewhat more difficult, but still not impossible. Flag and signal poles afford great assistance, especially if the color is displayed; but even without this, they are useful to the inquisitive for completing the description, filling up gaps in the plan, show quickly where, during the year, a new fort, a new battery sprang up. Trifles, which I see, are often an important indication, a great help in the puzzle of an enemy's fortification.

May these lines be beneficial to the armed force and thereby to the fatherland; impart modest indications to the influential authorities, and thereby preserve many a man to his family and the German Empire. Even laymen see "herewith" through the keen glasses of love for the profession of arms and the fatherland; this and the useful, which has so far escaped the deciding experts who are certainly animated with the best skill, and for that reason may still be of value.

I believe that I thoroughly understand the author's article and have endeavored to convey his meaning in the above translation.

taken in the same line from Corps Headquarters. At the same time I was conducting this reconnaissance for General Lawton, Maj. W. D. Beach, U. S. Vol. Engineers (Captain Third Cavalry), was conducting similar work for General Wheeler. I was surprised to find that the reconnaissance work was soon practically taken out of the hands of the division commanders by an order from Corps Headquarters, which directed that all officers engaged in reconnoitering should submit daily, at 5 o'clock P. M., to Lieutenant-Colonel Derby, chief engineer,* a report of their observations, accompanied with a map. As I was superior in rank to the chief engineer, and was performing the reconnaissance work voluntarily, I declined to place myself under his orders, and, with the approval of the division commander, I continued my reconnaissance for the information of the latter alone. The two lieutenants whom I had on duty with me were thereupon detailed, by orders from Corps Headquarters, to report to Lieutenant-Colonel Derby for reconnaissance duty under his directions."

Yet on pages 67 and 68, Colonel Wagner says:

"But though Lawton had studied his ground with care and had gained valuable information of the position of the enemy in his front at El Caney, the reconnoitering of the enemy's position in general was incomplete and unsatisfactory. The reconnaissance in front of El Pozo was not sufficient to locate the enemy's position, or to gain a knowledge of the ground over which the troops must move in pushing forward to the attack. * * * As it was, only such general view of the country in front of El Pozo was obtained as Moses may be supposed to have gotten of the Promised Land when he viewed it from Mount Pisgah."

This criticism is not fair to Lieutenant-Colonel Derby and the officers under him. Indeed, there is every reason to believe—and the records bear us out in the statement—that the officers under Lieutenant-Colonel Derby did just as good reconnaissance work as they would have done under Lieutenant-Colonel Wagner. On this point Lieutenant-Colonel Miley, in his book "In Cuba With Shafter," says:

"The work of reconnaissance was so important that Colonel Derby's entire attention was devoted to it. He had six junior officers as assistants, and they felt their way to the front, daily getting nearer and nearer, making rough maps and taking notes, and the information thus gained each day was carefully charted and compiled by civilian assistants to Colonel Derby, for the information of the commanding general."

Nor is this criticism of Colonel Wagner fair to General Shafter. Lieutenant-Colonel Miley says:

"Early on the morning of June 30th, General Shafter, with Colonel McClernand, Colonel Derby, Lieutenant Noble and Lieutenant Miley, of his staff, rode about a mile and a half toward Santiago to El Pozo. From the hills at this place the general had an excellent view of the Spanish line along the crest of the San Juan hills, and could also see El Caney in the distance, as well as some of the country between. From El Pozo the general and his staff rode still farther along the road in the direction of Santiago, until they were stopped by Cuban pickets, who said the enemy's pickets were about 200 yards beyond."

*Lieut.-Col. Derby had succeeded General Ludlow as Chief Engineer of Shafter's Army.

Though it is true that little or nothing was learned about the country behind the Spanish pickets, which were posted a half mile or more in front of San Juan Heights, yet Colonel Derby could not possibly have gained this information without a reconnaissance in force; and this could not have been made without General Shafter's orders. The statement is often made by officers who were present at Santiago that little or no reconnoitering was done, simply because they happened to know, at the time of little or none being done. And it may be remarked here that such errors often creep into reports of participants of battles. Their vision is limited, and their knowledge frequently obtained during the excitement of the occasion from inaccurate sources is apt to be, and often is, incorrect. The only way to get at the truth of such matters is to study and compare all the reports of participants.

In some other respects, too, it seems to us that the author has not been fair to the chief engineer of the Fifth Corps. Taken in connection with the circumstances set forth in the above quotations from Colonel Wagner, does not the last line of the following quotation regarding Colonel Derby, who had been sent by General Shafter to indicate the direction and position General Lawton was to take after the Battle of El Caney, seem to exhibit some bitterness?

"Riding along with his staff in the moonlight, he [General Lawton] suddenly encountered the fire of a Spanish outpost and was compelled to withdraw. Returning to his command, he sent out a strong patrol of Cubans to reconnoiter. The staff-officer, Lieutenant-Colonel Derby, also went out to the front, and, presumably, in order to indicate his whereabouts to General Lawton, began singing 'John Brown's Body' in a loud voice. He was soon fired upon by the Spanish picket and left the vicinity. He was not seen by General Lawton until the following morning."

The same character of error, namely, one that assumes that certain things were not done simply because the participant did not see or know of their being done, is to be found in the following:

"About 2.30 A. M., no report from the Cubans having been received, General Lawton again started out on a reconnaissance, but was overtaken with orders to withdraw, by way of the artillery position near El Caney and the Corps Headquarters, and thence to cross the San Juan River in rear of Wheeler's division, and form on the right of the latter. He began his march at once, reached the San Juan River at daylight, and about noon his command, greatly fatigued, having been marching and fighting nearly thirty hours on light rations, reached a position which it could have taken up by a march straight to the front, not more than 600 yards from its bivouac near the Ducrot House. I have never been able to understand the cause for this movement, nor has anybody who was in a position to know ever explained it to me. * * * It seems strange that the movement should have been ordered before Lawton could ascertain, definitely, by a reconnaissance, the strength and location of the hostile force on his right."

There is no doubt, of course, but that this movement was ill-advised and, under the existing conditions, a serious blunder; but as a matter of fact, General Lawton himself had sent an officer to General Shafter's headquarters to report the circumstances of his being fired upon and had asked for instructions. General Shafter thus refers to the matter in his report:

"After the brilliant and important victory gained at El Caney, Lawton started his tired troops, who had been fighting all day and much of the night before, to connect with the right of the cavalry division. Night came on before this movement could be accomplished. In the darkness the enemy's pickets were encountered, and the division commander being uncertain of the ground and as to what might be in his front, halted his command and reported the situation to me. This information was received about 12.30 A. M., and I directed General Lawton to return by my headquarters and the El Pozo House as the only certain way of gaining his new position."

Having reference to General Shafter's plan of battle at El Caney and San Juan, the author says: "Tactically, this plan was as good as any that could be devised." It is very much to be doubted whether there could be found a single able officer in our army who would agree with Colonel Wagner in this statement. Everyone knows that it was not necessary for General Shafter to make the assembling of his divisions for an attack upon San Juan Heights dependent upon the capture of El Caney. There was, indeed, no good reason why Lawton should not have been instructed that, in case the Spaniards at El Caney offered a determined resistance, he should not delay there, but should leave a containing force to hold the garrison in check, and then rapidly push forward to San Juan Heights. It was unwise to plan a battle in which all the divisions were to unite before making the main attack, and at the same time to order one division to capture a certain position before it joined the other divisions; for the success of the main operation was thus made to depend upon a contingency which might or might not turn out as was expected. The fact that it did not turn out as was expected made it necessary for General Shafter to modify his original plan, and compelled him to fight the battle of San Juan with 8,412 men, instead of 15,065, as he originally intended.

On page 82, Colonel Wagner makes this statement:

"It was found, however, that when the Sixth and Sixteenth Regiments of infantry had deployed, they did not flank the enemy's position, but were in front of it, and under such a heavy fire that an attack was necessary as the only alternative to a retreat. They were accordingly directed to assault the enemy's position, which they did successfully, and with a degree of gallantry that will ever cast a luster over the Regular Army."

This, of course, leaves the impression in the reader's mind that these two regiments alone captured San Juan Hill. On page 85, Colonel Wagner says:

"Kettle Hill was carried by the cavalry about the same time that Fort San Juan Hill was carried by the infantry."

It should, however, be noted that these two errors of statement have been corrected by the editor in the following footnote:

"The assault at this time was made by the whole line, the left of the dismounted cavalry joining the right of the infantry in the attack upon the San Juan Blockhouse. The center and right of the cavalry first carried Kettle Hill, and then pushed on to the heights in their front."

On page 88, Lieutenant-Colonel Wagner says:

"As soon as the position had been carried, the Gatling battery went to the support of the cavalry division, and lent valuable assistance in the capture of San Juan Hill."

This, too, is an error which has been corrected in a footnote by the publisher. As a matter of fact, the Gatling guns did not join the cavalry division until after the capture of San Juan Heights.

But notwithstanding these errors and a few others which the limits of this review prevent our pointing out, this report of Colonel Wagner contains interesting matter and some valuable, and generally sound, criticism. It is, however, in no sense a history of the campaign, as the title on the back of the book would indicate, but is simply a report of what Colonel Wagner saw in part and surmised in part. It is safe to say that had this able officer and writer been living at the time the book was published, he himself would have revised and changed some of the statements and conclusions therein in accordance with facts that have come to light since he wrote his report.

H. H. SARGENT,
Captain, Second Cavalry.

Is the United States Prepared for War?

UNDER the above title is printed, in pamphlet form, an article by Mr. Frederic Louis Huidekoper that appeared originally in the *North American Review* for February and March, 1906. In this pamphlet, however, appears an introduction by Hon. Wm. H. Taft, our Secretary of War, and some reviews by *The Army and Navy Register*, and *The Journal of the U. S. Infantry Association*, which commend Mr. Huidekoper's ideas in very strong terms. The author follows in the main the arguments set forth by Gen. Emory Upton in his "Military Policy of the United States," an unfinished book that should be in every house in the United States and read by our people with more care and study than any other book except the Bible. It is true the author of this pamphlet points out and emphasizes much that General Upton did not emphasize, though largely because he brings the statistics down to date.

There is a wonderful amount of food for reflection in this article, and especially for the American business man, who, in the event of war, must be the greatest sufferer among our male inhabitants, because business and war are actually antagonistic during active hostilities. Of course it is our women who must bear the brunt of the suffering that results from all wars, and this is especially aggravated in the case of wars that are defensive, and in which the offensive is lost through unpreparedness for war.

It is not believed that Mr. Huidekoper gives sufficient weight to the part the militia must play in all of our preparations for war, and in the war itself. True, he states that we must have a reserve, but he limits this body to men who have had actual experience in the regulars or volunteers in time of war. Under our institutions this is not practicable, nor will it be until our people have been educated to a different line of thought upon this subject.

In the event of a war in the immediate future our volunteer armies would have to be raised and officered by the several States instead of by the general Government. If we would change this we must change our Constitution and the education of our people. This does not change in the slightest the general conclusions drawn by him as to our necessities for a reserve and general preparation. The details for this

preparation should be worked out by the army itself. The time has come when our army officers should devote their time and best talents to the formulation of a general scheme for the national defense. It is time to stop trying to throw the blame for our defenseless situation upon Congress. This body will not and cannot proceed along any lines that differ from or are inconsistent with the public opinion of our country. Their existence as members depends upon adherence to this fundamental principle of legislation. The only cure therefore is for the army itself to make a careful study of our situation, our status and condition as a world power, and of our wants. Then we should formulate not only a statement of these but also of a comprehensive scheme for curing the situation together with a detailed statement of the cost of adopting it. In a word, this will amount to the formation of plans for the organization of any army, a thing we have never had in this country in time of peace, that is commensurate with and appropriate for our status as a world power.

The next step should be to submit this scheme for an army to Congress for suitable action. At the same time, if this has not been previously attended to, the public press of our country should be utilized to educate our people up to a proper comprehension of what we must have. There is no more grave responsibility resting upon the army at the present time and no duty that any officer should be more proud of having his name connected with than this. In the meantime, and until this has been accomplished in a thorough manner, all criticism of Congress for failure to provide a suitable army for national defense is out of place, especially in the army.

E. F. GLENN.

The Maneuver and the Umpire.

THIS pamphlet of twenty-six pages comprises a lecture delivered by Maj. Eben Swift, Twelfth Cavalry, at the Staff College, Fort Leavenworth, Kans., on the 27th of June, 1906. It embodies the notes made by the author in a period of seventeen years. It has no official authority, but was delivered and published as a suggestion to officers who might be detailed "on the important duty of umpire during the approaching maneuvers."

The first half is devoted to an exposition of the nature and uses of the maneuver, and the duties of umpires; the second half to a discussion of losses in battle. Among the valuable suggestions contained in it the two following seem especially noteworthy:

"If the signal corps is present it should be used by the chief umpire in keeping communication with all parts of the field and in securing rapid decisions. This use for the signal corps is probably preferable to assigning it directly to troops in maneuvers of the size conducted in our country, and at the same time it gives every opportunity for the corps to show its special fitness.

"In order to preserve a conservative character to the maneuvers and avoid the influence of natural partiality for one's own arm, no attempt should be made to assign umpires to duty with their own arms of the service * * *. Almost every officer has a notion of playing his own little game of war, and the further he is removed from his particular 'fad' the better for the maneuver."

There is a table of infantry fire and one of artillery fire, and a mass of data and rules for the guidance of umpires and of troop leaders.

Under the head of "The Use of Maneuvers in the Education of Troops," the lecturer remarks: "Our theory of maneuvers should be based on the idea that we are there teaching our own troops the things that we wish them to remember in battle—in fact, we wish to form a habit of the maneuver ground that will not be lost in the presence of danger." This reminds the reviewer of an incident which he observed a year ago at a joint militia and army maneuver which took place in one of our Atlantic seacoast harbors. A force of militia infantry attacked another force of militia infantry. At the *critique* which followed, the Regular Army officer acting as chief umpire, stated in substance that the attack was conducted according to the drill regulations, and would have been all right had the drill regulations been right, but that these being contrary to the principles of tactics, the form of the attack was subject to the same criticism. Can the author's fundamental idea obtain at maneuvers unless it obtains also at drill, and can it obtain at drill with the present drill regulations?

Under "Battle Losses" are a number of historical instances of engagements of considerable duration involving small or insignificant losses. The reader should not take the figures relative to the battles of antiquity too seriously. Those of the best authorities are but approximations to the truth. The author gives the loss of the Greeks at Marathon as 172 men. According to a recent German writer, their loss in killed and wounded amounted to something between 1000 and 1500 men. (*Geschichte der Kriegskunst*, Hans Delbrück, Berlin, 1900, page 50.)

The reviewer ventures to express his dissent from, and disapproval of, the views and methods set forth in the following propositions:

"It is not necessary to make an actual calculation of loss or to tell off men to represent the dead and wounded. It is far better to avoid such depressing details. * * * we close the action at the point when both sides are ready for the fray, and we permit each side to leave with the impression that it would have won. The umpires are instructed to give their decisions in such a way as not to impair the confidence of troops in themselves. Such an object can never be attained when we make close decisions on questions of victory and defeat."

Instead of preparing the troops by experience for the inevitable discouragement and depression that follows failure, the author would have them kept in innocent ignorance of these feelings, or deluded with the conceit that they are to attend only on the enemy. Is not moral stamina, as well as physical and mental power, to be cultivated and developed at maneuvers, and can this be done by neglecting or coddling the moral faculties?

Generally speaking, troops at a maneuver are not satisfied that they have won or are going to win, until they have the umpire's decision to that effect, and an umpire cannot decide that one side has won or is going to win, without deciding that the other side has lost or is going to lose. Neither side will gain clear ideas on the effect of fire and the principles of troop leading, if it is left in the dark on the question of victory and defeat. Would it not be well, instead of trying to prevent decisions on this question, to teach the troops to console and encourage themselves when they fail by looking forward to success some other time, giving them, by suitable changes of condition, a fair share of advantageous opportunity?

Telling off the dead and wounded is, perhaps, not "necessary," but

it seems expedient, not merely as a simulation of a feature of real fighting, but as a means of affording practice to the hospital corps. So far from being depressing, the usual difficulty with such details is to prevent their being ludicrous.

This work should prove interesting and helpful to all classes of American soldiers. It meets, not a long-felt, but a real, want born of the establishment of national maneuver grounds and the institution of periodical maneuvers. The author, now on the general staff, and for a number of years an instructor at the Staff College, is a recognized authority on troop leading and kindred branches of the art of war.

J. B., JR.

Public Addresses.*

THIS is a collection of addresses made by Mr. Coudert between 1873 and 1897, which exhibit with clearness the genial and brilliant intellectual characteristics of this able lawyer. The introductory note, written by his legal associate, Mr. Paul Fuller, sufficiently outlines the biographical and professional facts of his life, to indicate how these essays came into existence, and how they constituted but a side light upon his life, attainments and accomplishments. Those who were privileged to know Mr. Coudert and who had heard him speak, can reproduce in these essays, in imagination, the ringing tones of his voice and the dexterous gentleness of his keen and witty thrusts.

Essentially devout and respectful to the traditions of his church, soldierly in the bold and masterful approach to the argument, or theme which he had in hand, considerate and deferential to the possible strength of the points which might be urged in opposition to his views, alert to parry, or to inject some humorous inference to break the force of an adversary's blow, Mr. Coudert was one of the most skilful and delightful advocates and speakers.

While these essays are not likely to have a very permanent historical value, as biographical data and as expositions of the brief treatment of current matters, they are worthy of preservation and study.

The topics include Arbitration, International Law, Memorial Speeches and general social subjects presented to the Catholic Union of New York.

C. E. L.

Projectile Throwing Engines of the Ancients.

IN a volume recently published by Longmans, Green & Co., Sir Ralph Payne-Gallway, Bt., gives a brief but comprehensive history and description of the war engines used by the ancients, and brings together for the first time under a single cover about all that is to be known of these death dealing and destructive machines.

The book can be read in an hour and constitutes what would be a most interesting lecture that is extremely clear in expression, and with the excellent illustrations enables one easily to imagine the appearance and to understand the force, operation and effect in warfare of catapults,

**Addresses. Historical, Political, Sociological*, by Frederick R. Coudert, 1. o. pp. XVIII 452 (no index) 1905, N. Y., G. P. Putnam's Sons.

balistas and similar devices. In doing so it is impossible to escape a mental contrast with the terrible weapons of the present day, nor to escape either the conviction that a machine capable of hurling a stone, weighing half a ton or more, a distance of five hundred yards was neither to be neglected nor despised.

The volume also includes a chapter dealing with the structure, power, etc., of Turkish and other Oriental bows used in mediæval and later times.

H. O. S. H.

A Week in the White House with Theodore Roosevelt.

AN exceptional opportunity to study an exceptional man was given Mr. William Bayard Hale. He was allowed to mingle with the multitude that visits the Executive Mansion, and to observe Theodore Roosevelt in his method and manner of performing the functions, and discharging the duties of President of the United States.

In a volume entitled "A Week in the White House," published by G. P. Putnam's Sons, Mr. Hale presents a vivid picture of Roosevelt the man and Roosevelt the President; it is indeed a moving picture in words, or better still, a moving statue, for it shows the subject from all sides and it is believed in no manner can one who has never seen our President get a better conception of him than by reading "A Week in the White House."

From the work also is to be gathered a good idea of what sort of official life is imposed upon the head of this great democratic world power, and the variety of subjects he is called upon to discuss, passing from one to another in swift succession.

Mr. Hale particularly depicts this in his chapter "A Cabinet Day at the White House." The little volume is so filled with the names and doings of well-known men who are constantly in our mind that the reader finds himself unconsciously partaking of their life.

To those who do not know President Roosevelt—to all who would like to know him better, and to those unfamiliar with the daily routine of a President's life, "A Week in the White House" is commended. It is difficult to see how any work could better portray it. H. O. S. H.

Vanished Arizona.*

THIS is a charming book—both as to manner and matter. For the first, it has the simplicity of truth combined with a vivid descriptive power. For the rest the author has drawn upon a rich fund of experience as a subaltern's wife who "followed the drum" with her husband for thirty-three years. Tales of campaigns, of forced marches, of bloody battle-fields are not rare, but the many instances of wifely fortitude and personal sacrifice through all the vicissitudes of military service on the frontier are seldom recorded. Therefore Mrs. Summerhayes' contribution to the literature of camp and garrison is welcomed as a chronicle of "the days of the Empire" vanished from sight, but dear to memory.

The narrative begins with a brief sketch of the visit of an American girl to the family of a retired German Field Marshal, where the simple,

**Vanished Arizona*. By Martha Summerhayes. With twenty-four illustrations. Philadelphia. Press of J. B. Lippincott Co., 1908. \$1.60.

wholesome home life of her entertainers was combined with the punctilious military manners and customs of a European State.

A little later this young lady begins her married life under very different conditions and exchanges the comfort and conventionality of a typical New England home for the Bohemian existence of a second lieutenant of infantry ordered to Arizona in the early seventies. Through perils by land and water, rude and limited quarters, short rations, extremes of temperature (122° in the shade to 30° below zero), Apache alarms, rattle-snakes and numerous other ills the author pilots the reader. An incident under head of "A Memorable Journey" (from Camp Apache to Camp McDowell) is thus described:

Six good cavalymen galloped along by our side on the morning of April 24, 1875, as with two ambulances, two army wagons and a Mexican guide, we drove out of Camp Apache at a brisk trot.

The drivers were all armed, and spare rifles hung inside the ambulances. I wore a small derringer, with a narrow belt filled with cartridges. An incongruous sight, methinks now, it must have been. A young mother, pale and thin, a child of scarce three months in her arms, and a pistol belt around her waist.

* * * * *

Quite early in the day we met a man who said he had been fired upon by some Indians at Sanford's Pass. We thought perhaps he had been scared by some stray shot and we did not pay much attention to his story.

Soon after, however, we passed a sort of old adobe ruin, out of which crept two bareheaded Mexicans, so badly frightened that their dark faces were pallid; their hair seemed standing on end, and they looked stark mad with fear. They talked wildly to the guide, and gesticulated, pointing in the direction of the pass. They had been fired at and their ponies taken by some roving Apaches. They had been in hiding for over a day and were hungry and miserable. We gave them food and drink. They implored us, by the Holy Virgin, not to go through the pass.

What was to be done? The officers took counsel; the men looked to their arms. It was decided to go through. Jack examined his revolver and saw that my pistol was loaded. I was instructed minutely what to do in case we were attacked.

For miles we strained our eyes, looking in the direction whence these men had come.

At last, in mid afternoon, we approached the Pass, a narrow defile winding down between high hills from this table-land to the plain below. To say that we feared an ambush would not perhaps convey a very clear idea of how I felt on entering this pass.

There was not a word spoken. I obeyed orders, and lay down in the bottom of the ambulance; I took my Derringer out of the holster and cocked it. I looked at my little boy lying there helpless beside me, and at his delicate temples, lined with thin blue veins, and wondered if I could follow out the instructions I had received: for Jack had said, after the decision was made, to go through the pass, "Now, Mattie, I don't think for a minute that there are any Injuns in that Pass, and you must not be afraid. We have got to go through it any way, but"—he hesitated—"we may be mistaken; there may be a few of them in there, and they'll have a mighty good chance to get in a shot or two. And now listen; if I'm hit, you'll know what to do. You have your derringer; and when you see that there is no help for it, if they get away with the whole outfit, why, there's only one

thing to be done. Don't let them get the baby, for they will carry you both off and—well, you know the squaws are much more cruel than the bucks. Don't let them get either of you alive. Now," to the driver, "go on." * * *

I fixed my eyes upon my husband's face. There he sat, rifle in hand, features motionless, his eyes keenly watching out from one side of the ambulance, while a stalwart cavalryman, carbine in hand, watched the other side of the narrow defile. The minutes seemed like hours. * * *

At last, as I perceived the steep slope of the road, I looked out, and I saw that the pass was widening out and we must be nearing the end of it. "Keep still," said Jack, without moving a feature. My heart seemed to stop beating and I dared not move again until I heard him say, "Thank God, we're out of it. Get up, Mattie! See that river yonder? We'll cross that to-night, and then we'll be out of their God d—d country." * * *

And if I had been a man I should have said just as much, and perhaps more.

In that remote region, where servants were not to be had for money, the reliance upon a faithful soldier was seldom placed in vain. Naturally, the author pays this tribute:

At Camp Apache my opinion of the American soldier was formed, and it has never changed. In the long march across the territory they had cared for my wants and performed uncomplainingly for me services usually rendered by women. Those were before the days of lineal promotion. Officers remained with their regiments for many years. A feeling of regimental prestige held officers and men together. I began to share that feeling. I knew the names of the men in the company, and not one but was ready to do a service for the "lieutenant's wife." * * *

During that winter I received many a wild turkey and other nice things for the table from the men of the company. I learned to know and to thoroughly respect the enlisted man of the American Army.

The book is well printed, illustrated by many portraits and views, and may be obtained by addressing the author, Mrs. J. W. Summerhayes, Nantucket Island, Mass.

T. F. R.

Reinforced Concrete.*

QUOTING the author, this book "may not be regarded as a complete treatise on concrete factory construction," but it will nevertheless prove of interest to architects, engineers and builders, for whose information it has been prepared, by reason of some typical examples of this method of building, which are described in more or less detail. The opening chapters are devoted to a superficial treatment of the design and construction of factories and concrete aggregates. The major portion of the book, which follows, comprises chapters on the construction of some well-known buildings erected throughout the country, in which much valuable data relative to detail are given. Besides numerous plans, the book contains many illustrations, and on the whole, considering its object, is a very creditable medium for advertisement.

J. F. R.

*"Reinforced Concrete in Factory Construction": Compiled by Sanford E. Thompson, Consulting Engineer. Published by the Atlas Portland Cement Co., 30 Broad St., New York. 250 pages. Bound in paper cover.

Received for Library and Review.

Ballads and other Poems; A Life in Song; The Aztec God, and other Dramas. By George Lansing Raymond. G. P. Putnam's Sons (New York and London), The Knickerbocker Press, 1908.

Airships, Past and Present. By A. Hildebrandt, Captain and Instructor in the Prussian Balloon Corps. (New York) D. Van Nostrand Co., 1908.

Grant's Campaign in Virginia, 1864. By Captain Vaughan-Sawyer, Indian Army. (London) Swan, Somerschein & Co. (New York) The Macmillan Co., 1908.

War on the Sea. By Gabril Darrieus, Captain French Navy; Professor of Strategy and Naval Tactics at the Naval War College. Translated by Philip R. Alger, Professor U. S. Navy (Annapolis), 1908.

Journal of the U. S. Infantry Association, Vol. 1, July, 1904 to July, 1905.

The Campaign in Virginia, May and June, 1864. By Thos. Miller Maguire, M.A., LL.D., F. R. H. S. (London) William Clowes and Sons, Ltd., 1908.

Catechism of a Field Company, Signal Corps, U. S. Army. By Paul W. Beck, 1st Lieut. Signal Corps. Published by direction of the Chief Signal Officer, U. S. Army, 1908.

Making a Soldier. By Lieut.-Col. A. C. Sharpe, U. S. Army. (Cleveland) The Acme Publishing Company, 1908.

The 1820 Journal of Stephen Watts Kearney, comprising a Narrative Account of the Council Bluff-St. Peters Military Expedition and a Voyage down the Mississippi River to St. Louis. Edited by Valentine Mott Porter. (St. Louis) Reprinted from Missouri Historical Society Collection. Vol. III.

Our Exchanges.

American Society of Civil Engineers (to date).

Army and Navy Journal (to date).

Army and Navy Chronicle (London) (June 15).

Artilleri-Tidskrift (to date).

Arms and the Man (to date).

Bulletin American Geographical Society (August).

Canadian Military Institute (to date).

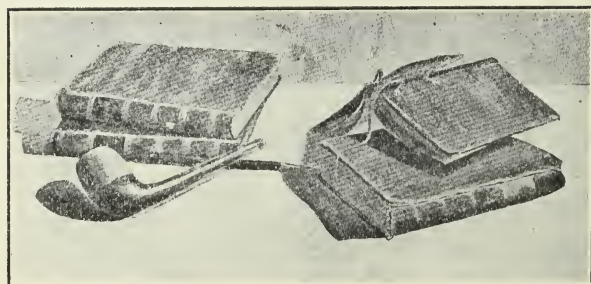
Current Literature (August).

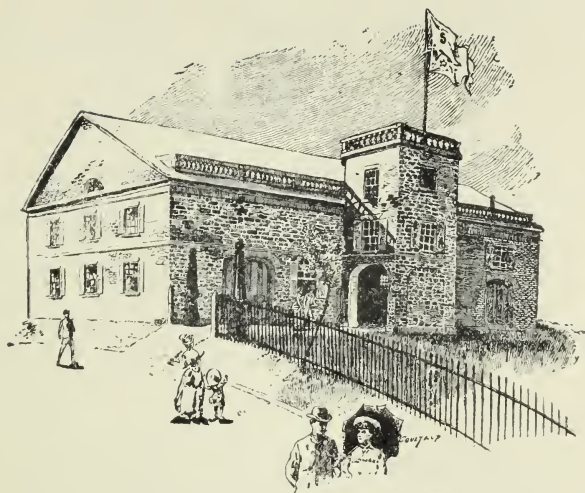
Journal of the Association of Military Surgeons (August).

Journal of the Royal Artillery (August).

Journal of the U. S. Cavalry Association (July).

Journal of the U. S. Infantry Association (July).
Journal of the Royal U. S. Institution (August).
Journal of the Western Society of Engineers (August).
La Revue Technique (to date).
La Belgique Militaire (to date).
Our State Army and Navy (Penna.) (to date).
Pennsylvania Mag. of Hist. and Biog.
Philadelphia Inquirer (to date).
Political Science Quarterly (August).
Proceedings of the U. S. Naval Institute (June).
Review of Reviews (to date).
Revista di Artiglieria e Genio (to date).
Revista Del Ejercito Y Marina (August).
Revue de l'Armee Belge (to date).
Revue Militaire (to date).
Revue Artillerie (to date).
Royal Engineers' Journal (to date).
The Army and Navy Life (to date).
The Arrow, Indian Industrial School (to date).
The Cavalry Journal (London) (July).
The Century Magazine (August).
The District Call (to date).
The Medical Record (to date).
The Pennsylvania German (July).
The Popular Science Monthly (August).
The Scientific American (to date).
The Seventh Regiment Gazette (to date).
United Service Gazette (London) (August).
United Service Magazine (London) (August).





THE MUSEUM OF THE MILITARY SERVICE INSTITUTION OF THE UNITED STATES,
GOVERNOR'S ISLAND, NEW YORK HARBOR.

Editor's Bulletin.

Accessions to Membership.

THE following-named officers have joined the MILITARY SERVICE INSTITUTION since last publication of accessions:

MEMBERS.

Major JOHN C. W. BROOKS, Coast Artillery Corps.
 Lieut. W. J. BROWNE, Philippine Scouts.
 Lieut. CHRISTIAN A. BACH, 7th Cavalry.
 Capt. GLENN H. DAVIS, 12th Infantry.
 Lieut. P. E. CLARKE, 23d Infantry.
 Lieut. C. M. CONDON, Coast Artillery Corps.
 Capt. STANLEY H. FORD, 5th Infantry.
 Lieut. HAROLD C. FISKE, Corps of Engineers.
 Lieut. ALBERT W. FOREMAN, 12th Infantry.
 Lieut. ULYSSES S. GRANT, 3d, Corps of Engineers.
 Lieut. FRANK T. HINES, Coast Artillery Corps.
 Major ODUS C. HORNEY, Ordnance Department.
 Capt. IRVIN W. HUNT, 6th Infantry.
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 Lieut. FRANK P. LAHM, Signal Corps.

Lieut. MORTON C. MUMMA, 2d Cavalry.
 Lieut. W. C. POWERS, Jr., U. S. Marine Corps.
 Lieut. JUNNIUS PIERCE, Coast Artillery Corps.
 Lieut. A. G. PENDLETON, Artillery Corps.
 Lieut. HENRY W. PARKER, 2d Cavalry.
 Capt. ALLEN D. RAYMOND, Coast Artillery Corps.
 Lieut. ROBERT J. REANEY, 2d Cavalry.
 Capt. DWIGHT W. RYTHIER, 6th Infantry.
 Lieut. HARRISON T. SWAIN, U. S. Marine Corps.
 Lieut. F. S. SNYDER, 2d Cavalry.
 Lieut. CARL TRUESDELL, 5th Infantry.
 Capt. ROY I. TAYLOR, Coast Artillery Corps.
 Capt. PHILIP YOST, Coast Artillery Corps.

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Mr. JAMES McMURRAY, Medical Department, O. N. G.
 Mr. F. DE FOREST KEMP, 2d Regt., N. G., N. Y.
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 Major WILLIAM J. EPSON, Hospital Corps, Iowa N. G.
 Capt. JOHN F. KLEIN, 10th Regt., N. G., N. Y.
 Col. WILLIAM MANN, Late Mich. Cavalry.
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 Sergt. HERBERT A. FIFE, Co. K., 1st Infantry, Ills. N. G.
 Lieut. GEO. A. KATZENBERGER, 3d Regt., O. N. G.
 Capt. ROY A. COOK, 53d Infantry, Iowa N. G.
 Capt. RALPH M. GLOVER, 49th Sep. Co., N. G., N. Y.
 Mr. ERIC L. BOETZEL, 7th Regt., N. G., N. Y.
 Capt. H. J. MEHARD, I. R. P., 1st Inf., Pa. N. G.
 Capt. WM. L. CLEMENS, late 1st Inf., N. G., Mo.
 Lieut. M. G. BROWNE, Philippines Constabulary.

**Essay
on
Senility.**

The Publication Committee having accepted (as announced in the July JOURNAL) "for early publication" an essay entitled "Senility," submitted by Major C. E. Woodruff, Medical Department, U. S. A., which, shortly thereafter, without the knowledge of the Committee, was used by the author as a lecture and in part published in a newspaper of large circulation, the Committee, at a special meeting, was unanimously of the opinion that the essay had lost, to a great extent, the value it might otherwise have had for this JOURNAL and directed that it be returned to the author.

**Hancock
Prize,
1907.**

The Hancock Prize, 1907, of \$50 has been awarded to Corporal JESSE W. BERRY, Co. A., 10th U. S. Infantry, "for the best short paper on matters affecting the Line published in the JOURNAL during the twelve months." Subject: "How to Instruct a Recruit to Shoot."

**Accessions
to
Library.**

The following Publications have been received from Gen. C. McE. REEVE, of Minneapolis, Minn.: (1) "Reglamento para El Servicio de los Canones"; (2) "Manual de Tiro para La Infanteria y La Artilleria"; (3) "Conocimientos Indispensables para El Oficial en Campana"; (4) "Reglamento para El Servicio de los Baterias de 80 de Montana." Published in San Jose, Costa Rica.

**National
Guard
and
Member-
ship**

National Guardsmen, both commissioned and enlisted, are eligible, and are cordially invited to become Associate Members of the MILITARY SERVICE INSTITUTION; commissioned officers, upon their own application, and non-commissioned officers and men, on written application, endorsed by a member or associate of the INSTITUTION. For additional information address the "Secretary MILITARY SERVICE INSTITUTION, Governor's Island, N. Y."

**Complete
Copy of
The
Journal.**

The Journal—from No. 1 to date, complete—may be purchased upon application to the SECRETARY M. S. I., Governor's Island, N. Y.



Journal
of the
Military
Service
Institution
1878
—
1908

Governor's
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N. Y. H.

THE JOURNAL

NOVEMBER-DECEMBER, 1908



SOME papers recently received for publication in the JOURNAL:

- I. "THE USE OF CAVALRY IN WARFARE UNDER EXISTING CONDITIONS." By Colonel Charles A. P. Hatfield, 13th Cavalry.
- II. "WEST POINT IN LITERATURE." By Brig.-Gen. William H. Carler, U. S. A.
- III. "THE WORK OF THE CHAPLAIN IN THE MILITARY SERVICE." By Chaplain Charles S. Walkley, Coast Artillery Corps.
- IV. "THE FRENCH INVASION IN MEXICO." (Graduating Thesis, Army Staff College, Class 1908.) By Lieut. Luis Monter, Mexican Army.
- V. "POST PROFESSIONAL LIBRARIES FOR OFFICERS." By Lieut. G. R. Catts, 10th Infantry.
- VI. "SOLDIERS' CLOTHING; ITS ILLEGAL PURCHASE, AND HOW TO PUNISH THE OFFENDING PURCHASER." By Capt. H. R. Hickok, 15th Cavalry. (Continued.)
- VII. "ART IN THE ARMY—A FORECAST." (III.) By Brig.-Gen. Joseph P. Farley, U. S. A.
- VIII. TYPES AND TRADITIONS OF THE OLD ARMY. "Chancellorsville Revisited." By Mr. A. C. Redwood.

THE PUBLICATION COMMITTEE invites contributions of original papers, translations and comments upon current topics. Attention is called to "Gold Medal," "Seaman," "Short Paper," and "Santiago" prizes described elsewhere.



MEMORANDUM

THE MILITARY SERVICE INSTITUTION OF THE UNITED STATES is an association of officers of the Army and National Guard for the promotion of the military interests of the United States. Membership entitling to a vote in the control of the INSTITUTION is open to officers of the Army, upon their own application, without ballot. Any commissioned officers of the Organized Militia may become Associate Members by a ballot of the Executive Council upon their own application; all other persons of good repute, including enlisted men of the National Guard, are eligible to Associate Membership, by ballot upon a written application endorsed by a Member or Associate Member of the INSTITUTION.



MEMBERSHIP comprises eligibility to compete for the Gold Medal and other annual prizes of the INSTITUTION; subscription to the bi-monthly JOURNAL; admission to the Museum and the use of books composing the Military Section of the New York Public Library, which, by a pending arrangement and prescribed rules, may be loaned to Members or Associates of the MILITARY SERVICE INSTITUTION only. Annual dues \$2.50. Life Membership \$50.



THE JOURNAL of the MILITARY SERVICE INSTITUTION is the only bi-monthly magazine in the United States, controlled exclusively by officers of the Army, which is devoted to the interests of all branches of the military service, and is indispensable to the complete professional equipment of military students.

The Military Service Institution.

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Term ending 1913.

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Post Surgeon, Fort Jay.

MEMBERSHIP AND DUES.

Membership dates from the first day of the calendar year in which the "application" is made, unless such application is made after October 1st, when the membership dates from the first day of the next calendar year.

Initiation fee and dues for first year \$2.50; the same amount annually for five years subsequently. After that two dollars per year. This includes the Journal. Life membership \$50.



Gold Medal—1908.

First Prize—Gold Medal, \$100 and Life Membership.

Second Prize—Silver Medal, Honorable Mention and \$50.

I.—The following Resolution of Council is published for the information of all concerned:

Resolved, That a Prize of a Gold Medal, together with \$100 and a Certificate of Life Membership, be offered annually by THE MILITARY SERVICE INSTITUTION OF THE UNITED STATES for the best essay on a military topic of current interest, the subject to be selected by the Executive Council, and a Silver Medal and \$50 to the first honorably mentioned essay. Should either prize be awarded more than once to the same person, then for each award after the first, a *Clasp* shall be awarded in place of the medal.

1. *Competition to be open to Members and Associate Members only.**

2. Each competitor shall send three copies of his essay in a sealed envelope to reach the Secretary *on or before January 1, 1909*. The essay must be strictly anonymous, but the author shall adopt some *nom de plume* and sign the same to the essay, followed by a figure corresponding with the number of pages of MS.; a sealed envelope bearing the *nom de plume* on the outside and enclosing full name and address, should accompany the essay. This envelope to be opened in the presence of the Council after the decision of the Board of Award has been received.

3. The prize shall be awarded upon the recommendation of a Board consisting of three suitable persons chosen by the Executive Council, who will be requested to designate *the essay deemed worthy of the prize*; and also in their order of merit those deserving of honorable mention.

In determining the essay worthy of the prize, the Board will be requested to consider its professional excellence, usefulness and valuable originality, as of the first importance, and its literary merit as of the second importance. Should members of the Board determine that no essay is worthy of the prize, they may designate one or more essays simply as of honorable mention; in either case, they will be requested to designate one essay as first honorable mention. Should the Board deem proper, it may recommend neither prize nor honorable mention. Should it be so desired, the recommendation of individual members will be considered as confidential by the Council.

4. The successful essay shall be published in the Journal of the Institution, and the essays deemed worthy of honorable mention shall be read before the Institution, or published, at the discretion of the Council, which reserves the right to publish any other essay submitted for a prize, omitting marks of competition.

5. Essays must not exceed ten thousand words, or twenty-five pages of the size and style of the JOURNAL (exclusive of tables), nor contain less than five thousand words.

II.—The Subject selected for the Prize Essay of 1908 is

**“WHAT IS THE CAUSE OF THE RECENT FALLING OFF IN THE
ENLISTED STRENGTH OF THE ARMY AND NAVY, AND WHAT
MEANS SHOULD BE TAKEN TO REMEDY IT?”**

III.—The Board of Award is named as follows:

Rear Admiral CASPAR P. GOODRICH, U.S.N.
Major-General WILLIAM F. DUVALL, U.S.A.
Brig.-General EDWARD S. GODFREY, U.S.A.

GOVERNOR'S ISLAND, N. Y.,
Jan. 1, 1908.

T. F. RODENBOUGH,
Secretary.

*As amended Nov. 13, 1907.

1908

Annual Prizes—1908

THE SEAMAN PRIZES.

(Founded by Major L. L. Seaman, M.D., LL.B., late Surgeon, U. S. V.)

One Hundred Dollars.

Seaman
Prize
I

For best essay on a subject selected by Major Seaman and approved by Council; competition open to all officers and ex-officers of Army, Navy, Marine Corps, Marine Hospital Service, Volunteers or National Guard; in other respects same as Gold Medal prize except that essays are limited to 15,000 words, and are due November 1.

Subject: "The Medical Department of the United States Army: Upon what lines should its much needed Reorganization be instituted?"

Board of Award: Col. P. F. HARVEY, M.D.; Capt. CHARLES LYNCH, M.D., and Capt. N. S. JARVIS, M.D., U. S. A.

Fifty Dollars.

Seaman
Prize
II

(Rules same as Prize I, except that essays shall comprise not less than 2,000 nor more than 5,000 words.)

Subject: "The Company Non-Commissioned Officer: How can his efficiency be best promoted and his re-enlistment be secured?"

Board of Award: Brig.-Gen. J. P. MYRICK, U. S. A.; Lieut.-Col. R. L. HOWZE, U. S. A., and Capt. J. H. McRAE, Gen. Staff.

THE SANTIAGO PRIZE.

(Founded by the National Society of the Army of Santiago de Cuba.)

Fifty Dollars.

Santiago
Prize

For "best article upon matters tending to increase the efficiency of the individual soldier, squad, company, troop or battery," published in the JOURNAL M. S. I. during a twelvemonth, ending December 1; awarded upon recommendation of Board selected by President N. S. A. S. C.; competition limited to officers of the Army and National Guard below grade of Lieut.-Colonel; essays not less than 1,000 nor more than 5,000 words.

HANCOCK PRIZE.

Fifty Dollars.

Short Paper
Prizes

For best short paper on matters affecting the *Line* of the Army, published in the JOURNAL during twelve months ending May 1.

FRY PRIZE.

Fifty Dollars.

For best short paper on matters affecting the *General Service* not covered by Hancock Prize, published during the twelve months ending Sept. 1.

Essays to be not less than 1,500 nor more than 3,500 words.

Publisher's Department.

The most striking addition to the new olive drab uniform are the canvas puttee leggings, which are an exact match in color. One of the new recruits for the Philippines who made his appearance on a street in Washington some days ago, and being addressed on the subject of his very trim appearance, in speaking for his comrades and himself, expressed great pride in his new leggings, or to put it as he said, "they make the uniform look like one piece." They are unquestionably the neatest canvas puttee leggings yet produced, and the general effect of the uniform with this addition is very much on the fashion-plate order. These leggings are not obtainable from the Quartermaster's Department but may be purchased direct from dealers, or from the manufacturers.



TO ADVERTISERS: QUALITY VS. QUANTITY.

BY M. M. GILLAM.

[From Printer's Ink.]

A pretty close watch on the advertising field for the last thirty years has brought a number of conclusions very clearly into my mind. One of the most important of these conclusions, as I take it, is in regard to the advertising value of circulation.

The tendency on the part of both the agent and the man who pays for the advertising is first, last and all the time, when considering a medium, particularly a daily newspaper, to lay greatest stress on the amount of circulation it is supposed to have. This is a mistake. No such basis is or can be found. The number of readers that can be had for any publication signifies much, but the character of those readers signifies very much more.

The popular notion that an advertising rate should be a definite quantity, like that for a bushel of corn or for a yard of cloth, for instance, is an absurdity. There is no such standard. There can be no such standard. One newspaper differs from another in advertising value as much as one star differs from another in glory. And this in spite of any question of circulation.

* * * * *

Practically the same condition exists in regard to magazines. Some of these publications have circulations that run well up to the half-million mark and yet reach constituencies of small individual buying power.

The only way to learn what the advertising value of any periodical really is to judge by results. In the absence of such data there are

earmarks that the man skilled in these things will not overlook. If a publication is attractive to a class of a community or to the people of a section of the country the fact will be patent, and there will be an advertising value to its circulation that is exactly proportioned to the number of copies read and to the appeal that the advertised thing makes to the taste and to the buying capacity of the readers.

Right here is where the services of a bright, square, well-posted advertising agent comes in as a profitable investment. Very few business men have the time or the training to even approximately master the newspaper situation. To do it even fairly well requires a broad, clear, analytical mind, unbiassed judgment and a world of experience and observation. The costly folly of poor copy is admitted, but I believe that vastly more money is lost by advertisers through mistaken or over-estimated mediums than in any other way.

WATCHING NEW PUBLICATION.

I have been much interesterd in watching the course of the new Southern magazine, Uncle Remus. This is a publication that seems to have a mission—to represent the best thought of the Southland. Yet in doing so it is not partisan, it is not sectional.

* * * * *

I should consider such a magazine a fine advertising medium for anything that will appeal to a thoughtful, earnest, intelligent constituency of average citizens. The more of them there are the better, of course; but I will be amazed if there is not business for any reasonable advertiser in such a medium, even if it had but ten thousand circulation instead of the more than two hundred thousand that Uncle Remus claims.

A prominent department store advertiser in New York told me recently, when talking of a city publication with nearly one hundred thousand circulation, that time and time again he had tried that medium for his store without one response that could be traced. I cannot conceive that such a condition could exist with any publication that had a loving, believing following.

* * * * *

Again I point to the moral of it all—that the worldly wise advertiser will study the character of his mediums as closely as he can, he will catch results, he will be impressed by surface indications of all sorts—then he will try to make such offerings as will be winsome to the readers he appeals to. He will not hit the bull's-eye every time, but he should never score a clean miss if he is not carried away by the myth that circulation is the all-in-all as a basis for determining advertising values.

JOURNAL

OF

THE MILITARY SERVICE INSTITUTION

OF THE

UNITED STATES.

"I cannot help plead to my countrymen, at every opportunity, to cherish all that is manly and noble in the military profession, because Peace is enervating and no man is wise enough to foretell when soldiers may be in demand again."—GENERAL SHERMAN.

Vol. XLIII.

NOVEMBER-DECEMBER, 1908.

No. CLVI.

USE OF CAVALRY IN WARFARE UNDER EXISTING CONDITIONS.*

BY COLONEL CHARLES A. P. HATFIELD, THIRTEENTH CAVALRY.



IT is only by the study of campaigns at all periods of history that we can arrive at any clear idea of the proper use to make of cavalry in war.

Nothing has been lost; for while it is only the great leader who has shown us the highest development and use to make of this powerful arm, yet, it is by contrasting the work of such men with that of men of lesser degree, who could only partially understand, that we derive our most valuable lessons.

Are we not taught by Alexander at Arbela, and Hannibal at Cannae, that mobility and cohesion, which can only be acquired by the most skillful training, are essential to obtain brilliant results?

Does not the Great Frederick teach us that the greatest mobility and cohesion in the masses can only be obtained by the most careful and rigid training of the individual horseman?

And are we not given our first lesson in the strategic use of cavalry on a grand scale by Napoleon on his march to Ulm in 1805?

The discovery of gun-powder and the invention and continual improvement of firearms have had the greatest effect on the progress of cavalry.

No other arm has been subject to so many theories.

It is not a new thing for it to be a favorite topic.

*Lecture at Camp of Instruction, Pine Plains Camp, N. Y., June 16, 1908.

Hence we see the various customs which have been advocated and adopted in Europe during the last few centuries in regard to its use.

However, during all of its ups and downs, the idea that its usefulness might be increased by adding fire action in some way has prevailed; but since fire action mounted was found to be ineffective and impracticable, we find the development of the dragoon, a man who can dismount on occasion and fire his piece to advantage.

Both Frederick and Napoleon used the dragoon successfully, but the growth of the idea was slow, owing mostly to tradition and the violent prejudices of cavalry officers, who claimed that a cavalryman dismounted and separated from his horse was degraded.

At such a period of uncertainty, when, due to the rapid improvement in firearms and a long period of theory, even its friends could not decide what to do with cavalry, as can be seen by reference to its use in the Crimea, we come to our Civil War.

And, since the most recent and highest authority on the use of cavalry in future wars—Bernhardi—has apparently drawn his ideas largely from the operations of the American cavalry in this war, it may be well to go somewhat into detail in regard to the development of our cavalry from 1861 to 1865.

At the commencement of this great struggle—April, 1861—the mounted force of the United States consisted of two regiments of dragoons, one of mounted rifles and two of cavalry. An additional regiment of cavalry was added in May, 1861, and the whole mounted force was designated cavalry. It was thought, at first, that these six regular regiments would be sufficient for the war, owing to the prejudice of General Scott, and regiment after regiment was refused; no one dreaming that before the end of the war there would be 80,000 Union cavalry in the field at one time.

Owing to an unusual amount of ignorance in the first two years of the war, cavalry had a hard time finding its place and being recognized, but since it is in the practical application of the principles of war in a hard fight of four years, when theories must be finally thrown aside, that something can be learned, we will see what the Civil War teaches about cavalry.

It required the disaster of Bull Run—July 21, 1861—at which there was only several hundred cavalry on either side, to arouse the Government into accepting volunteer cavalry regi-

ments, which were soon brought into service. McClellan, who had recently returned from a tour of observation of the armies of Europe, full of theory and without experience, was assigned to the command of the Army of the Potomac, which he organized with great skill, but his prejudice, equal to that of Scott, was visible in his organization of the cavalry.

As he states in his report, he intended to give at least one regiment of cavalry to each division of infantry (which he had seen done in the Crimea and in Italy), and this he did, as far as he could, thus placing his cavalry at the disposal of inexperienced generals, who further divided it, so that in many cases brigades were able to have a troop or squadron of cavalry, to add to the importance of the new general as it dashed along in his wake or furnished orderlies for his headquarters.

The regular cavalry, instead of being brigaded with the volunteer regiments, as was done with such marked success two years later in Minty's brigade of the Army of the Cumberland, was on account of its neat appearance and superior discipline, greedily taken by the senior generals, and was nearly all absorbed at the different headquarters.

I doubt if history affords a case parallel to that of McClellan, a general who, after organizing and commanding an army of 150,000 men in campaign for sixteen months, so thoroughly misunderstood or derived so little benefit from his cavalry. Not only did he fail to grasp its idea, but by mistreating and degrading it, he made the name of cavalry a by-word and reproach throughout the Union Army. This deplorable misuse of the cavalry was the same under Burnside, and continued until Hooker, who was placed in command on January 26, 1863, finally gave it independence under one leader, when it soon responded to its improved condition.

In the Western armies at this period, affairs were just as bad. When Buel's army marched to Shiloh in the spring of 1862, it had a force of 10,000 cavalry divided among the infantry divisions, and, when a few months later Forrest and Morgan were striking lines of communication, it was found impossible to organize a sufficient body of this misused cavalry to check them.

Owing to the abuses I have mentioned, during the first two years of the war the cost of keeping up the cavalry was out of all proportion to its usefulness.

The work of orderlies, escorts, incessant and unnecessary

picket duty, the scattering of cavalry among so many different commands are all very destructive to horse-flesh.

It was nothing unusual for half of the cavalry to be dismounted, although the Government purchased 284,000 horses for the cavalry and artillery during the first two years of the war, when at no time was there more than 60,000 cavalry.

The Confederates were wiser. Early in the war they gave great attention to the organization of their cavalry, which remained throughout a favored arm and did most excellent service.

The reasons usually assigned for this, that the Southerners were better horsemen, or that there was a large class owning fine horses and naturally preferring the cavalry service, do not explain it so well as the fact that the South went into the contest with more determination and placed such men as Lee, the two Johnstons and Stonewall Jackson at the head of its armies.

As early as June 13, 1862, when McClellan's army was in front of Richmond, we find Stuart with a force of 2500 cavalry making a raid, or rather a strategical reconnaissance, entirely around the Union Army.

Colonel von Borcke, in his memoirs, says, "At one point of our journey, the house occupied by the Federal Commander-in-Chief, General McClellan, as his headquarters, surrounded by the white tents of a very large camp, was plainly visible at the distance of about two and one-half miles." The result of this reconnaissance was that Jackson moved his 40,000 men, a few days later, on the right and rear of McClellan's army, with the usual consequence.

Following the Chancellorsville campaign, early in June, 1863, the Army of Northern Virginia was encamped on the south bank of the Rappahannock, with its right on Fredericksburg, while Stuart held the upper fords of the Rappahannock from the Confederate left, with his main force encamped between Culpeper and Brandy Station. The Federal Army was at Falmouth, with its right covered by Pleasanton's cavalry massed at Warrenton.

The initial step in the approaching campaign, which culminated at Gettysburg, was taken by Lee, whose first objective was Culpeper, the advance of Longstreet's corps reaching that point on June 7th.

Hooker, on June 6th, directed Pleasanton to make a reconnaissance in the direction of Culpeper to ascertain what Lee's army was doing. On approaching the Rappahannock, Pleasanton divided his cavalry, about 10,000, into three columns,

which crossed and moved in the direction of Brandy Station. Each of these columns encountered the enemy's cavalry, and in a short time a general engagement followed, which lasted all day, and was the greatest cavalry fight of the war. There were many brilliant charges with the saber during the battle, with success first on one side and then on the other, but on the approach of night Pleasanton withdrew from the field.

Pleasanton's task of piercing the screen and discovering the movements of the enemy had failed, but the moral effect on his cavalry, knowing that it had fought the entire force of Stuart's formidable cavalry for an entire day, and had at last been used in its proper role, was immense. It has been truly said that the cavalry of the Army of the Potomac had birth at Brandy Station.

Lee's next objective was the upper fords of the Potomac, which he proposed to reach by the Shenandoah Valley, entrusting to Stuart's cavalry, supported by Longstreet's corps, the protection of his right by occupying the passes of the Blue Ridge.

Hooker, who had also moved North and still uncertain of Lee's movements, directed Pleasanton, on June 17th, to start from Warrenton Junction and obtain information.

Pleasanton intended to move to Ashby's Gap, but at Aldie he met the Confederate Cavalry, when a desperate cavalry fight ensued. In a determined effort to penetrate the screen interposed by Stuart, there were several severe cavalry fights; at Middleburg, on the 19th, and again at Middleburg, which extended to Upperville, in front of Ashby's Gap, on the 21st, from which point Stuart's cavalry was driven in headlong retreat to Ashby's Gap, where it took refuge behind Longstreet's corps.

As a result of these operations, Pleasanton's scouts had ascended the Blue Ridge and had seen Confederate camps in the Shenandoah Valley, thus definitely discovering the march and intentions of the enemy.

Owing to the proper use of Pleasanton's cavalry, Lee had been unable to discover the movements of the Federal Army, which crossed the Potomac at Edward's Ferry on June 24th and 25th, which, coming as a surprise, materially changed the character of the campaign as originally conceived by Lee.

The operations of the cavalry of the Army of the Potomac in this campaign, which I will not attempt to follow in detail, furnishes us a rare and very valuable lesson of the highest employment of cavalry in war.

When directed to obtain information of the enemy, how did

it proceed? Certainly not by a complicated, harmless, ineffective screen, which would not have lasted a moment, but by heavy fighting masses, preceded by the necessary well-conducted patrols and scouts. It obtained information, not by slight of hand, but by fighting three cavalry battles.

How did it perform its next high duty of concealing the march of its army? Not by a thin veil, but by formidable, well-handled masses with their intelligent scouts and patrols.

In this campaign of Gettysburg we see the Federal Cavalry fighting five cavalry battles on the march, recognizing its value and seizing the site of Gettysburg and holding it against the assaults of the enemy's infantry, making a determined attack against the right of the Confederate line of battle, and finally in a great cavalry battle on the field itself, probably saving its army from defeat.

So far as I know, history furnishes nothing equal to this.

After the half-hearted pursuit of Lee's army, in which the cavalry did all that was done, we find the Army of the Potomac once more on the bank of the Rappahannock, with the cavalry, which had lost its friend Hooker, settled down into pretty much the same old rut, although it had been spared the humiliation of being again apportioned to the infantry divisions.

Sheridan, who had been assigned to the command of the cavalry corps of the Army of the Potomac, joined in April, 1864, and in speaking of its first review, says, "But the horses were thin and very much worn down by excessive, and it seemed to me unnecessary, picket duty, for the cavalry picket-line almost completely encircled the infantry and artillery camps of the army, covering a distance on a continuous line of nearly sixty miles, with hardly a mounted Confederate confronting it at any point."

I doubt if anyone in the entire army was so eminently fit to command the cavalry, to protect it against prejudice, to raise it to the high development it finally attained, as Sheridan. His first task was to overcome the prejudice of Meade, who deemed cavalry fit for little more than guard and picket duty; but, fortunately, being supported by Grant, we find him a month after joining his command, starting out to fight Stuart's cavalry.

Sheridan, knowing that the shortest way to accomplish this would be to march for the enemy's sorest point, moved in the direction of Richmond, met Stuart at Yellow Tavern, and gained a complete victory from which the Confederate cavalry never recovered. After the Battle of Yellow Tavern, where the Con-

federates lost Stuart, one of the most brilliant cavalry leaders of the age, the Federal Cavalry was able to go wherever and whenever it pleased.

No one understood so well as Sheridan how to employ his cavalry in its dual capacity; when to use it as a dismounted force and when to use it mounted with saber. Thus, at the Battle of Winchester, when Sheridan was contending with Early for the possession of the Shenandoah Valley, we find his cavalry dismounted, forcing the fords of the Opequon and immediately afterwards mounting, and by successive charges against the left of Early's entrenched line, capturing a battery of five guns and 1200 prisoners, thus insuring the complete defeat of Early's army.

Has any cavalry ever taken a more glorious or decided part in war than did Sheridan's in the closing days at Dinwiddie, Five Forks, Sailor's Creek and Appomattox?

In commenting on the affair at Sailor's Creek, Sir Henry Havelock says:

The mode in which Sheridan, from the special arming and training of his cavalry was able to deal with this rear-guard, first to overtake it in retreat, then to pass completely beyond it, to turn, face it, and take up at leisure a position strong enough to enable him to detain it, in spite of its naturally fierce and determined efforts to break through, is highly characteristic of the self-reliant, all-sufficing efficiency to which, at this time, the Northern horseman had been brought. The practical experience of nearly four years of continual war, the entire and untrammelled confidence placed in good men amongst the Northern leaders, when they proved themselves to be so, and the complete freedom left them of devising and executing the improvements their daily experience suggested, had enabled Sheridan, and one or two more of similar bent of mind, to shake themselves free of the unsound traditions of European cavalry theory, and to make their own horse, not the jingling, brilliant, costly but almost helpless unreality it is with us, but a force that was able on all grounds, in all circumstances, to act freely and efficiently, without any support from infantry. Not only is there no European cavalry, with which the writer is acquainted, that could have acted the part now played by the force under Sheridan, but there is not on record, that he is aware of, an instance in the eventful wars of the last or present century in Europe of a strong rear-guard having been thus effectually dealt with."

Owing to its independence of infantry support, the cavalry raid assumed far more importance in the Civil War than in any of the other wars of history; for instead of being a fruitless dash through the enemy's territory, the raiding force could proceed more leisurely and with more effect. Wilson setting out from the Tennessee River in the spring of 1865 with a force of 12,000

cavalry, wagon and pontoon trains, virtually the three arms of the service, marching through Alabama and Georgia, assaulting and capturing strongly fortified posts and thousands of prisoners, and destroying vast quantities of war material, furnishes us a famous example of this class of operation.

Admitting that the vast increase in range and rapidity of fire of small arms and artillery, and other conditions, in the last forty years have made changes necessary and rendered the task of cavalry more difficult, yet the cavalry of the Civil War gives us no end of lessons for the employment of cavalry in war from which we can draw for all purposes in the future.

The development of the idea of dismounting cavalry to fight on foot for offensive as well as defensive purposes, in which the Confederates under Forrest and Morgan led, solved the problem which had for years puzzled the wise heads of Europe, although to this day, through bigotry and prejudice, they insist on calling our cavalry mounted infantry. However, it must be said that it is only with officers and men of superior intelligence, thoroughly trained and entirely released from tradition, and with what is called the "cavalry spirit" somewhat moderated, that any such cavalry as I have described can be produced.

We have nothing to learn from the use of cavalry in any of the great wars since 1865. The Germans in 1870, with their famous screens and complicated and unwieldy system of patrols, did get information and hid the movements of their armies, but we know that their success was largely due to the inferior work of the French Cavalry. What would have been the result if Sheridan, with his 12,000 cavalry, had been attached to one of the French Armies and given free rein?

We see the British in South Africa organizing several thousand mounted infantry, because their cavalry had not been trained to fight.

We all expected when the Japanese and Russians commenced their war to get some fine lessons from the Cossack, not knowing that he, since the wars of Napoleon, like our American Indian, when approached by too much civilization, had become a degenerate.

It requires far more intelligence in officer and man than possessed by the Russian Cavalry in Manchuria to give developments in the employment of cavalry, and in my opinion the Japanese, not only because of inferiority of numbers and quality

of their horses, but from want of adaptability to the mounted service, fell far short of the mark.

The work of training cavalry to take its proper part in war, which has always been a difficult task, is greatly increased under present conditions; but it must be borne in mind that the individual horseman now, as in the day of Frederick, is the unit of efficiency, and that by his thorough training in the use of his rifle, saber and pistol, and especially in the care of his horse, we arrive at efficiency in the mass. He must be taught that a good cavalryman thinks of his horse first and of himself afterwards.

Notwithstanding that cavalry, in its new accomplishment of fire power has had its field of usefulness vastly extended, it must not be forgotten that in its mounted action with the saber it still has great possibilities in war; and in its training for dismounted work the troops must not be allowed to lose confidence in the shock. It is, indeed, by a correct balancing of the importance of these two classes of action that the true cavalry spirit exists.

I believe that good cavalry, equally expert with the rifle, saber and pistol, when dismounted for attack or defense, is equal to, if not superior, to the best infantry, man for man, on account of a confidence inspired by the knowledge of its power as a mounted force, and that therein lies the difference between our cavalry and mounted infantry. While the actual fighting value of cavalry, under the conditions of modern war, has diminished, it no longer holding its place of honor on the battlefield, and its employment in every direction has become more difficult, yet its strategical importance and the scope of duties which it has to fulfill have greatly increased, and new opportunities have been opened to it.

That army which has the largest and most thoroughly trained and efficient body of cavalry can surely operate at a great advantage.

The armies of to-day in any great war will necessarily be larger, will be subjected to a more terrifying fire, and be under a greater strain, with the nerves at a higher tension, and although cavalry, mounted, can no longer attack infantry in formation, so long as it keeps cool and fires to the front there will still be opportunities, when the reaction comes which follows defeat, for it to strike with telling effect on the battlefield itself.

But it is in strategical employment that cavalry finds its greatest possibilities. No other arm can take its place in the work of reconnoissance, screening, attacking the enemy's com-

munications or pursuing a beaten enemy. Since it has been found that one and the same body of cavalry cannot satisfactorily do the work of reconnoitering and at the same time furnish security, it has become necessary to divide the force into two distinct parts, with entirely different functions, so that while one, the divisional cavalry, is engaged in screening the army from observation, the other, the independent cavalry, may be free to perform its far more important and more difficult task of gaining intelligence. And, it is in properly apportioning this division that we can expect the best result.

I believe the principle laid down by Bernhardt that "as much cavalry as possible is to be organized for strategical independence, and as little as is expedient retained for the infantry divisions," is a correct guide.

On account of the development of the field-telegraph and the use of cyclists, which should do away in great measure with the work of mounted orderlies and messengers, I believe the assignment of a squadron to an infantry division would be found ample. Divisions on the flanks, or when engaged in independent work, would require more cavalry than interior divisions acting in combination with the army, but this could be remedied by devising an elastic system to take from one division and assign to another as the occasion required. Moreover, in case of an independent operation of a division or corps, and the circumstances demanded it, a force from the independent cavalry could readily be assigned to it temporarily.

At the commencement of hostilities the cavalry should be gotten ready for the work before it, but ordinarily, it should not be actively engaged until the concentration of the enemy's forces is about completed and his columns are ready to be put in motion. Then is the time for the cavalry on both sides to begin in earnest its indispensable work of reconnaissance and security; but if both forces attempted to do this difficult task by a network of patrols and screens, dodging and shunning conflict, to preserve their strength for use at some other time, until the approach of the armies caused them to withdraw to the flanks, they would neutralize one another and very little would be accomplished.

We know that advantages in war rarely come without fighting for them, hence, in order that the work of reconnaissance may be more effective, and the field of action for the cavalry throughout the campaign broadened, it becomes the superlative

duty of the cavalry commander to meet the enemy's cavalry and beat it from the field.

It is not meant that he should uncover his army to seek the enemy's cavalry on some eccentric course where it was probably the endeavor of the enemy to lead him, but that he should march in such direction as to force the enemy to take the law from us and interpose his cavalry, when the encounter would naturally follow. This duty does not depend on whether our cavalry is superior in numbers to that of the enemy, for a weaker force can, by skillful handling, mobility and rapid concentration, attack the enemy's extended masses and gain decided advantages, which would give our patrols confidence and increase their opportunities for successful work.

The commander of the army should have the utmost confidence in his cavalry leader, telling him of his plans in general and of any changes that may arise, and what he believes are decisive points and directions, but leaves to the leader whose place is always with his cavalry, the work of carrying out all details.

The independent cavalry moves to the front, at a distance dependent on the width of front and depth of its army, and in the direction of the enemy and deploys, leaving the security of the army principally to detachments in rear, the advance guards, and flanking detachments when on the march, and to outposts when at rest, assisted always by patrols and scouting parties from the divisional cavalry.

There are many things which the cavalry commander must consider in disposing of his force. If he has been advised that screening is his essential duty, it will mean greater extension; whereas, if reconnaissance is his principle object, it will require concentration; furthermore, his dispositions would be influenced by the extent of front, natural features of the country, availability of roads and the possibility and ease of a quick concentration.

However, we will take it as granted that he is employed in his proper and highest role, reconnoitering, in which case he would deploy his force in heavy masses, each capable of attack or resistance, thus insuring concentration, and since reconnaissance also requires more or less extension, he would provide for that by reconnoitering patrols.

It is for the cavalry leader to institute an effective system for conveying intelligence to the rear, in which the divisional cavalry would assist by maintaining connection with the advance, and for keeping himself and his detachments constantly informed of

what is going on in front, and of the location and progress of the different parts of his force, all of which would require many orderlies and messengers, and prove destructive to the horses; but this can be relieved greatly nowadays by utilizing, whenever possible, the field-telegraph and cyclists.

Two classes of patrols are sent out from the masses; one, consisting of an officer, one or two non-commissioned officers and half a dozen men, moves stealthily, avoids the enemy's patrols and endeavors to penetrate far enough to discover the enemy's columns and the direction of their march; the other class, which is supposed to fight, gives its attention principally to the enemy's cavalry, attacking the patrols, endeavoring to drive them back, gaining all information possible, and is really engaged in the preliminary stage of the inevitable cavalry battle for supremacy on the field of reconnaissance.

Since it is necessary for all patrols to send messengers to the rear, the fighting patrols soon become too small to be effective, hence, it becomes necessary to send troops, and occasionally entire squadrons, to keep touch with the enemy. The contact troops then send out patrols and act as collecting stations for information.

The position of the cavalry commander is well to the front with the troops in touch with the enemy, to receive information promptly, and to see for himself and be ready to act with quick decision.

The masses in moving to the front, being covered by the patrols and contact troops, require no other protection than their advance guards and flanking detachments, but if the occasion demands it, special patrols are sent out. They should particularly avoid an attack in open ground, which they must cross at a rapid gait until they arrive at a position capable of defense, where, with fire power and a liberal supply of horse artillery, they can resist until a concentration can be effected.

Should our cavalry be much superior in numbers or succeed, early in the advance, in defeating that of the enemy or driving it back to the protection of the infantry columns, a force from the independent cavalry might be sent at this period for strategical work to a flank of our army, or to operate on the flank or rear of the enemy, or it might be sent to destroy the rearward communications, which, on account of the size of the armies of to-day and the increased difficulty of supply, are more susceptible than formerly.

When the armies approach, the independent cavalry on both sides must withdraw to a flank, generally the near flank, or where it will be of most use, leaving the divisional cavalry to take up the work of reconnaissance as well as security.

The cavalry which has been defeated must now seek shelter behind its infantry, while that which has been victorious must immediately commence operations on the enemy's flank and rear.

During the battle the independent cavalry must be kept on the field. It is a mistake at this time to send it on a raid, or to keep it in rear of the army. Its position is forward and on the flank from which it can most readily operate in case of victory or defeat, and where it would be on hand for the cavalry fight, which should reasonably be expected if the enemy still has strength in that arm. Moreover, when placed in this position its horse artillery can be brought on the line to take part in the general engagement, and the leader can watch the course of the action and take prompt advantage of opportunities to employ his force.

It must always be arranged with sufficient intervals for the easy deployment of divisions, and, as a matter of course, must be given all the protection the ground affords, but it must expect to submit to heavy punishment even rather than lose golden opportunities.

In view of its training for dismounted work, if it becomes necessary, the entire force, or part of it, can be placed on the line to take the part of infantry.

Should the enemy be defeated and his army commence a rapid and disorderly retreat, then would be the opportunity for the cavalry to reap its richest harvest. Here would the cavalry leader be repaid for any care he may have taken to protect his men and horses from abuse and useless work, for now he must march night and day, must strain the endurance of his force to the utmost in his effort to reach the flanks, where he can strike repeated blows with rifle and artillery, to throw the enemy into such confusion that the saber may have a chance, and finally, should aim to equal the exploit of Sheridan at Sailor's Creek.

Again, should the enemy's army be victorious and start in pursuit, will the cavalry have an opportunity to do most distinguished service. Here, also, by means of its fire-power, its mobility and capacity of withdrawing from an attack on the enemy's flank at one point to renew it at another, and by occupying positions in defiles to resist a frontal attack, will it be able

to materially delay the pursuit and give its army time to reform and confront its pursuers.

On account of the many occasions, due to the conditions of modern war, when cavalry should be used in its dismounted capacity with rifle fire, it has become more necessary than formerly to assign it a suitable amount of horse artillery.

When engaged in strategical work in front of its army, in operations on the flank and rear of the enemy, or in raiding and attacking strong places on the enemy's communications, it should have as much artillery as can be brought into use.

In all dismounted engagements the artillery can take its position and act with the same significance it does as when with the infantry, but in mounted engagements with the saber, cavalry against cavalry, owing to the rapidly shifting scene, its work must be subordinate to that of the mounted force.

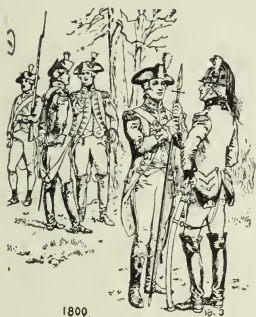
The task of the cavalry leader, which has been difficult at all periods, has become peculiarly so under modern conditions; being called on daily to give a quick solution of knotty problems and to act without a moment's hesitation, his office is undoubtedly the most difficult to fill in war.

With no other commander in campaign does the personal equation figure so largely, when a Sheridan or Stuart at the head of inferior troops can accomplish more than can be done by an inferior man with the most excellent and highly-trained body of cavalry.

Through want of time I will not be able to describe the proper manner of conducting dismounted actions, offensive and defensive, and of mounted combats with the saber, or to go more into detail in the subjects of cavalry raids, the proper training of cavalry and the care of the cavalry horse, but as far as I have gone I have endeavored to make it plain that cavalry, although it possibly cannot win fifteen great battles out of twenty-two, as it did under Frederick, and, notwithstanding its unfriendly critics who would relegate it to the background, still maintains its high position, and will always remain indispensable in all operations of war.

THE MILITIA LAW AND SOME REMARKS ABOUT THE MANEUVER CAMP AT PINE PLAINS, N. Y.

BY LIEUT.-COLONEL EDWIN F. GLENN, TWENTY-THIRD INFANTRY,
UNITED STATES ARMY.

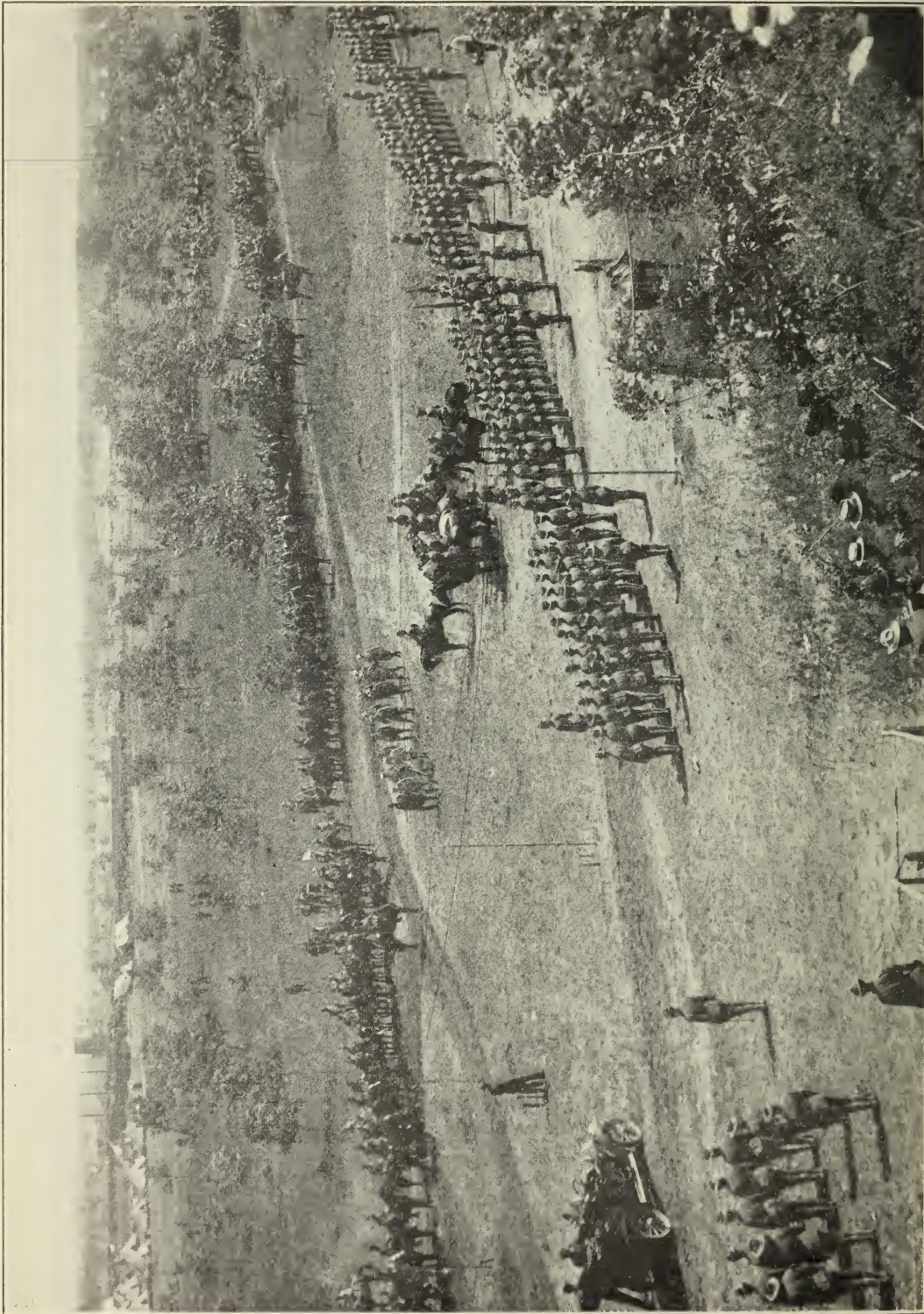


SOME years since the National Guard of the various States, Territories and the District of Columbia formulated an association known as the "National Guard Association of the United States."

This association meets in convention annually for the consideration of measures, including legislation for the benefit of the National Guard of the country. Early in its history this association, recognizing that our militia laws were so absolutely useless and out of date as to be farcical, commenced upon the work of remodelling them, with the avowed purpose of enabling the National Government to have at hand a trained force for national defense in the event of threatened invasion, serious rebellion, etc. In 1903 this work culminated in what has since been known as the Dick Bill, from Senator Charles Dick, of Ohio, who was and still is the president of the association, and who expended his best energies and time in securing the passage of this bill. At the last convention of this National Guard Association in Boston, Mass., in January last, some very important amendments to this law were duly prepared, received the unanimous approval of the convention, were recommended to the immediate consideration of Congress, were promptly passed by that body and became a law by executive approval on May 27, 1908 (vide G. O. 99 W. D. June 11, 1908).

On January 25, 1908, the Acting Secretary of War, in transmitting these amendments to the Senate Committee on Militia, said:

"The bill was prepared by a Committee of the 'National Guard Association,' composed of officers of high rank and long experience in the Organized Militia, who have been honorably identified with its development and who are deeply interested in its welfare and efficiency. In the preparation of the bill, the cooperation of the Department of the General Staff, and the several staff corps, has been cordially extended, and the measure, as perfected, represents the views of the officers of the regular



Courtesy Pictorial News Co.

REVIEW OF TROOPS BY GOVERNOR HUGHES AT PINE CAMP, N. Y.

establishment and of the Organized Militia in respect to those branches of the constitutional military establishments which are immediately concerned in solving the important problems of national defense.

"It should also be said that the bill fully embodies the experience gained in the execution of the general militia law of 1903, and in the operation of the system of joint maneuver and brigade camps, which the liberality of Congress has made it possible for the Department to inaugurate in recent years.

"It is the view of the Department that the measure will be productive of highly valuable results. The amount involved is not considerable, and will give to the Organized Militia of the United States a degree of efficiency which can only be obtainable by affording it a reasonable measure of Federal support and assistance. While the adoption of the measure will result in great and immediate benefit to the National Guard, it is also calculated to advance the efficiency of the Regular Army by bringing it into closer contact with the Organized Militia.

"For the reasons above stated, the bill is strongly commended to your favorable consideration as a measure of great and immediate concern."

The same authority on January 30th last, in reply to a letter from the chairman of the House Committee on Militia, in regard to the proposed amendments to the bill, said in part :

"Briefly stated, it is the purpose of the bill to place the Organized Militia upon such a footing, in respect to efficiency and material equipment as well as to enable that branch of the Constitutional military force to instantly respond to a call for troops issued by the President under the conditions of emergency, which are provided for in the Constitution.

"As a consequence of the liberality which has been shown by Congress in appropriating means for joint camps of instruction, which the secretary of war is authorized to establish in the operation of the general organization Act of January 21, 1903, it has been found possible for the first time in our history for troops of the Regular Army and the Organized Militia to come together for the purpose of instruction. The efforts of this contact on both branches of the constitutional military establishment have been most salutary. The officers and men of the militia have profited by the opportunity afforded to observe closely the administration and discipline of the Regular Army, and to benefit by its experience in the actual operations in war. The officers and men of the army have been brought into close and appreciative contact with those of the Organized Militia of the United States, to whose earnest, persistent and self-sacrificing endeavors its present efficiency is due. * * *

"The act vests authority in the secretary of war to establish an annual clothing allowance in behalf of the militia, in the operation of which articles of uniform and equipment, which have been worn out in the service, are to be replaced by the United States without cost to the soldier. This is calculated to prevent abuse and secure an economical execution of the statute. * * * An immediate effect of the act will be to increase the sums annually available to the several States for field and camp-service, and thus enable them to prepare themselves, by practice marches and State camps of instruction, for the joint encampments, the expense of which, in the operation of the general militia law, is now borne by the United States.

"Section 4 of the act contains an important provision in respect to the service of the Organized Militia, in the requirement that:

"Whenever the President calls forth the Organized Militia of any State, Territory or the District of Columbia, to be employed in the service of the United States, he may specify in his call the period for which such service is required, and the militia so called shall continue to serve during the term so specified, either within or without the territory of the United States, unless sooner relieved by order of the President."

"This wholesome and patriotic provision originates in the Organized Militia, and constitutes an offer of their services in case of national emergency during the active period of the emergency as measured by the call of the President, and is coupled with the reasonable and proper requirement that:

"When the needs of the Federal Government arising from the necessity to execute the laws of the Union, suppress insurrection or repel invasion, cannot be met by the regular forces, the Organized Militia shall be called into the service of the United States in advance of any volunteer force which it may be determined to raise."

"In this tender of service the existing limitation upon the term of employment of the militia to serve a short period, not exceeding nine months in duration, is generously waived. The regiments of militia will enter the service of the United States as living, continuing organizations, forming an essential and integral part of the first line of national defense. They agree to render service in any theater of military activity to which they may be called, and to continue in such service until the necessity for their employment no longer exists.

"The effects upon the Regular Army will be immediate and important, and have already been alluded to. The officers of the army will be afforded an opportunity to become familiar with field administration on a large scale, and with handling of considerable bodies of troops under conditions similar to those prevailing in actual warfare. This experience, which is not less valuable and essential to their efficiency will be equally shared by the officers and men of the National Guard.

"It is proper to say, in conclusion, that those to whose hands the administration of the army is intrusted are most earnest in the advocacy of a measure which is calculated to secure the efficient, harmonious and abiding cooperation of the two great branches of the constitutional military establishment. I earnestly commend the bill to the favorable attention of your committee, and I believe that its adoption, at the present time, will secure the purposes of national defense at a minimum of national expenditure."

The foregoing rather extended quotations are made with the purpose of showing in its own language the attitude of the War Department toward, and its opinion as to, the practical effects of this bill, when passed, upon the Regular Army, the Organized Militia and as a measure ensuring the national defense.

Although all the officers of the Regular Army, without qualification of any kind, are committed to an unqualified endorsement of the bill as representing their views, yet some of us are glad of an opportunity to publicly express certain qualifications, and particularly as to the practical effects of this Dick Bill and the recent amendments as constituting an absolutely safe and complete system of national defense. These qualifications or

suggestions will by no means imply a condemnation of the law as it now stands.

But before proceeding to a discussion of these limitations, it will be necessary to understand somewhat more fully the purposes or plans of the War Department in regard to the national defense, and particularly in so far as they were known to and considered by Congress in connection with the bill and its amendments. This can best be ascertained from extracts taken from an address of the Assistant Secretary of War before the National Guard Association in Boston, and made a part of the Senate records in connection with the amendments under discussion. He said:

"The armed forces that the United States depends on are: First, the Regular Army, a small body, carefully trained, always subject to the orders of the President; second, the National Guard, a large body, moderately trained, subject to the orders of the President on certain occasions (that is, during war, insurrection, invasion, etc.).

"Now I do not think that many of the National Guardsmen realize that they are exactly on the same plane as the Regular Army if war occurred to-morrow. Every National Guardsman, the day he signs his enlistment paper, or every officer of the National Guard, whenever he takes his oath, enlists for the war. Do you realize that? There has been so much talk, some loose talk, on the question whether the National Guard was in the first line or the second, or whether precedence would be taken by the volunteers, that I should like to have you all take that in. Gentlemen, you are in the first line, and you have volunteered; the thing is done.

"Then we depend, after these two that I have mentioned, upon a third body, the volunteers. The present volunteer law is archaic, and we want a new law; but the volunteers are an entirely separate body. The National Guard to-day are the State volunteers, and are identical, almost, with the volunteers of 1861, particularly if they remove the nine months limit. So that if you are called into service to-morrow, you first come as you are. There is no change in the present statutes necessary. I want you to understand that. No further legislation is needed on that point. That is the law now. Take that home with you. Many of you do not realize that in the event of war you become at once part of the United States Army. We want you to realize it and to count on it. * * *

"These volunteers will be United States Volunteers, and should be officered in the first place by enlisted men and officers of the army and the National Guard who may be found qualified. That is the design and intent of the War Department. So that we should have the three bodies, the Regular Army, the National Guard and, when called upon, the volunteers.

"How do we propose to make these instruments valuable? We have not got along as far with the volunteers as we have with the National Guard. The Dick Bill transforms the latter into a body of State volunteers, ready when called upon.

"The Regular Army, as you well know, is carefully trained at its army posts in all the various duties that are required of it, and has a very

elaborate system of education for its officers, which system is post-graduate after West Point. * * *

"Then every second year, the Regular Army has been, and it is proposed to put it under canvas for a month in six or eight different central localities, geographically selected as we did last year, as you all know. That enables them to maneuver in larger bodies than is possible at any post. * * * Also there is the coast-artillery, which will have its special instruction when placed under canvas, as they were last year.

"Now we want to reach, as much as we can, the National Guard. We cannot do it by order; we cannot do it by anything but moral suasion. The Dick Bill provides that the National Guard must do certain things if they want to get certain money, certain appropriations, but they are perfectly free to do these things or not as they please, if they do not claim that money. * * *

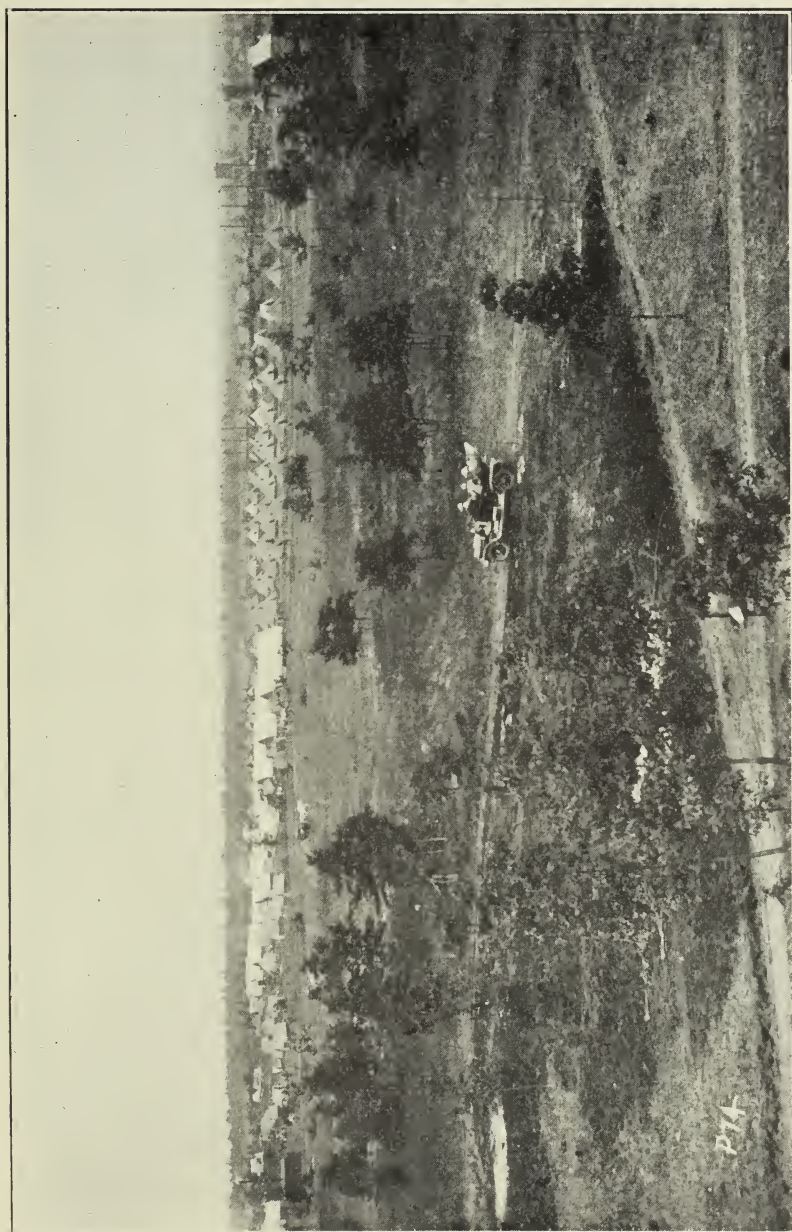
"With the rest of the force, infantry, cavalry and artillery, of the National Guard, after taking their education which they get from their States in their armories, and their drill-work, will go to their State camps for one year. The army will give them as many army officers as it can to assist in instruction and advice, and especially in endeavor to provide a small body of well-trained regular troops as a sort of exhibit or example. Then the second year, when the forces of the army have their camps in the six or eight departments, into which the army is now divided, and which correspond, more or less, closely with the six or eight geographical centers of the country, in that year we invite the National Guard to take part by sending one regiment for each contiguous State to this Regular Army camp to join in the instruction and exercises given to the Regular Army there.

"Now we invite those States to send us a regiment, or, if they are willing to pay their own expenses, more than a regiment, to come to this rendezvous to learn two things. One, all the duties we can teach them in the maneuvers, and secondly, probably the most important of all, to teach them how to come and go from their home base to this point. * * * We want to organize them, with the Regular Army, into an Army Corps, ready to take their place in the general organization at a moment's notice. * * *

"The various States would send on their troops every second year to that rendezvous. They would be organized into a corps, with brigades, divisions and their proper staffs; and they would not only remain a corps for these two weeks that they would be there, but they would be an army corps all the time, so that the general there would have special charge of that corps and would know what his troops were.

"This is all voluntary, remember, on your part. We cannot order you to do it. But the general will do all he can to assist and instruct the States that belong to his corps, and after a while we will have at the beginning this nucleus of six or eight army corps of the United States which can be brought together at their various gathering points in forty-eight hours."

Here we have set forth in clear and concise language the plans and hopes of the War Department, as expressed by our assistant secretary of war, as to a scheme or system of national defense involving the formation of six or eight army corps, composed of the Regular Army and of the Organized Militia.



GENERAL VIEW, PINE PLAINS CAMP.

Courtesy Pictorial Nexus Co.

Is this plan or scheme for our national defense a feasible one? Is it of such a practical nature as to warrant all officers of the Regular Army accepting it as a reflection of their views upon this subject? Are we, as experts in military matters, willing to have our fellow countrymen understand that we consider that this Dick Bill, as amended, "will secure the purposes of national defense at a minimum of cost?"

The Grand Army of the Republic, in the natural order of events, has practically ceased to be an important political factor. The Organized Militia has fallen heir to its political mantle. This not only has votes, but it has an organization that is thoroughly alive and wide awake, that reaches every nook and corner certainly of our vast continental domain, and into every part of every Congressional district. Its members know their power and do not hesitate to use it, and, as to all matters concerning the militia, they are non-partisan and thoroughly united. Furthermore, they are animated primarily for the good of our country. They are enthusiastic in their belief and support of the National Guard.

It is because of this organized political strength and of this enthusiasm that extends to all things military, including our national defense, that every effort should be made to see that such potent influences are wisely directed.

We owe the duty above mentioned to our country because we all know, in fact all other civilized nations of the earth know, that we are totally unprepared for a war with any first-class power, in spite of our enormous and practically unlimited resources. Our own people, as a whole, do not know this, and the few who are informed of it actually laugh at their informants, or else decline to believe to be true what is told them. The press of our country, up to date, has refused to recognize our actual situation, and has not been induced to enter upon a regular campaign of education. There have been spasmodic efforts made to arouse the public, but they never really have reached the people. When, however, our people are fully impressed with the facts as to our lack of land defense, Congress will doubtless perform its full duty, and not until that time.

Now let us ask what are the circumstances that prevent the combined forces of the Regular Army and Organized Militia from being or becoming a safe reliance as a national defense. Among the more important may be mentioned the following, viz.:

1. This combined force is not large enough to constitute a safe reliance even for a first line of defense.

2. It is not within the power of the National Government to increase these forces sufficiently to make them an effective first line, as contemplated by the Dick Bill.

3. To make use of the Organized Militia in units as now organized, as contemplated by the Dick Bill, would be suicidal in its results.

4. In spite of the evident contemplation of the Dick Law that the units of the Organized Militia shall be mustered into the service of the United States in time of war, threatened invasion, etc., it is at least an open question whether this is capable of practical enforcement.

5. No system of national defense can hope to be effective which does not contemplate that every able-bodied male citizen shall recognize, and readily comply with the individual duty and obligation of rendering educated and trained personal service under the colors, and which does not incorporate within itself the absolute power of efficiency of such trained service by every citizen without regard to station.

Taking these up in order, and first as to the inadequacy of the combined forces, what have we available in the Regular Army? Disregard the coast-artillery, which cannot be utilized away from the sea-coast and must be largely increased beyond the increment to be expected from the regiments of Organized Militia of that corps, and we have, all told, thirty regiments of infantry, fifteen of cavalry and thirty-six batteries of field-artillery. If all of these were available the situation would not be so hopeless, but these troops are so scattered over the face of the earth, in our arctic and tropical possessions, that they are not available. This is especially true of the infantry. Over half of this arm is doing foreign service, and principally in the tropics. In the past ten years, the average foreign tropical service of the infantry requirements has been about six years, with about four years in the continental limits of the United States, for recuperation. As our best medical talent thinks we should have four years at home, in order to recuperate from two years in the tropics, one sees at a glance that our country is not properly conserving the effectiveness and integrity of our infantry.

But, assuming all of our regulars at home are effective, it will be found that we have scarcely 10,000 troops of the Regular

Army within the United States (continental limits) available for active operations of any kind.

Of the militia we have 105,213 officers and men, of whom about 20,000 belong to the coast-artillery. In view of the fact that in the past we have never secured for national service over about 40 per cent. of the Organized Militia, it would certainly seem fair to assume that we will not receive over 50 per cent. in the future. This would give us about 42,000, which, added to our 10,000 regulars, would give us a combined force of 52,000. How far would such a force go towards organizing a defense, or even a first line of defense, for either our Atlantic, Gulf or Pacific sea-coast? For instance, on the Pacific coast we could scarcely hope to satisfy the people living there, or our own consciences with less than a division stationed at Hawaii, Los Angeles, Santa Barbara, San Francisco, Portland, Seattle and Dutch Harbor, respectively. This is seven divisions, and is not only a minimum, but would be entirely inadequate. This assumes that fully 50 per cent. of the militia responds, and that all of the New England, Eastern, Gulf and Central States quietly submit to the sending of all their available trained material beyond their reach, or call for home protection. Does anyone believe that this is liable to occur? But even if this were possible, we would still be short many thousands necessary to make up our minimum necessities, and we would have used up all of our trained material and will have nothing left with which to organize the real army that will be immediately in demand and necessary.

2d. To properly comprehend the lack of power of the National Government to increase the militia, let us ask: Who is it that organizes the militia? Is it not the sovereign States in their individual capacities? Does not the Organized Militia owe its allegiance primarily to the executive of its own State? Is there anything in the enlistment of a member of that body that makes him necessarily respond to the call of the President? If so, how is this obligation enforced? The Dick Bill, as amended, says he must be court-martialed. Granting that the remedy is applied, who will organize the court? Clearly the Governor of the State through whom all calls are made. The militia is called for through the Governors of States. The call specifies numbers, not organizations by name. After this and before subject to national jurisdiction, they must be *mustered* into the United States service.

In short, the President exercises no authority over the militia

until they cease to be such and become essentially volunteers by being voluntarily, and with the consent of the Governor, incorporated into the national service in time of war, insurrection, etc., and cannot, therefore, increase or diminish such force to meet our national demands, except through the Governors of States as prescribed.

3d. That it would be suicidal to incorporate our militia bodily into the national service requires little argument. In the first place, by so doing we would use up practically all of our trained and enthusiastic force, and would have practically nothing left with which to organize the real army of volunteers upon which our country always has depended, and probably always will depend for national protection. Then, too, all of us realize, when we stop to think, that to send out the privates and non-commissioned officers of our organizations, the bulk of whom are men of affairs, who are constantly handling and controlling men in large bodies, would be almost a crime, to say nothing of the effect upon those men themselves in reducing them to a grade so far below their merit and ability. But, most important of all, it will require every available man of the Regular Army and National Guard, who is competent, to furnish the commissioned and non-commissioned officers of the army, we will have to organize for a war of any magnitude. An army of a million men, probably the minimum we would use, would require, approximately, 5000 commissioned officers of the line, to say nothing of those required for the various staff corps, and about 240,000 non-commissioned officers.

Is it at all probable that any of the members of these two forces, who are competent, will be satisfied to go into a large war in such subordinate position as they would occupy in the regulars or militia? Would not such aspiration or ambition to be promoted be both natural and laudable? In our own opinion, a man without such ambition is not fit to be a soldier or a member of either the Regular Army or the National Guard.

4th. That the transfer of whole units as they exist at the time of the call by the President will not be practicable, appears from what has been herein above stated. It also appears from our history in this regard. It is by no means a new thing in our history for an entire regiment, or regiments, to refuse to respond to a call. If this should occur in the future, will the National Government be any better equipped for compelling such organizations to muster for the national defense? A careful



Photo. by Engineer.

RETURNING FROM MANEUVER AT GREAT BEND.

study of the law does not reveal it. Of course, the State may be in a somewhat stronger position, but when the general Government has to call upon and depend solely upon a theoretically independent executive to enforce its demands, you are brought face to face with all the objections that appear and make it impossible to serve two masters.

5th. Everyone knows that the Organized Militia does not fulfill the requirements above set forth for a satisfactory scheme or system of national defense. The scheme set forth in the language used is universal military education and training, coupled with compulsory universal service when occasion demands. This does not necessarily imply that we must have a Regular Army of the size of our European establishments, or that we should have even what is considered a large army. It should be large enough to serve the purposes of national police, without seriously impairing its efficiency with too much tropical or other service that seriously injures it. In a word, it should bear a corresponding relation to our entire population, that an efficient police of a city like New York bears to its population.

Now the Organized Militia of this, or any other country, has never met or fulfilled the required conditions as stated, because it is not now, never has been, never will be or can be a national force. It is a state force, and so long as it remains militia it remains a State force, and not a national force. The militia of our country, in spite of its failures as a national force in the past, has figured conspicuously in all of our wars. The men who composed it then, as well as those who compose it now, had, and have, no superiors in personal bravery and ability, or in love of country or of the flag. In short, they constituted, then as now, the real military enthusiasm of our country. It is to them, therefore, that we must look for the securing of a system of national defense that will prove satisfactory and complete, and that will adjust itself to our peculiar conditions.

So long, however, as they remain militia and, therefore, State troops, they cannot as such constitute our national defense.

This does not imply that we should not nationalize the Organized Militia much more completely than under the present Dick Law. We should make their training, discipline, equipment and armament conform strictly to that of our Regular Army. It is the part of wisdom to keep them up to date in all respects and to encourage them in every possible way in all of their efforts toward securing efficiency and proficiency in all mat-

ters military. This is especially true with regard to all matters pertaining to practical soldiering.

In this connection attention is invited to the closing paragraph of the report of the House Committee on Militia, upon the last amendment to the Dick Bill. After copying the War Department report that the bill would increase the efficiency of the militia as a Federal force, and also the great benefit to the Regular Army from joint encampments and mobilization into brigades, division and army corps for instruction and maneuvers on a large scale, this report added: "In view of the controlling importance in modern warfare of ability to handle and maneuver men upon a large scale with celerity and precision, this advantage alone would seem to justify the expenditure here involved."

In this brief summing up by Congress of our amendment, with special reference to its cost and the value received, we can all concur.

Under the new law and by reason of an appropriation generously made by Congress for the purpose, we have just held the first of six or eight maneuver camps.

THE PINE PLAINS MANEUVERS.

This camp was established at Pine Plains, Jefferson County, N. Y., where all available regular troops of the Department of the East, commanded by Maj.-Gen. Fred. D. Grant, U. S. Army, were assembled for a full month under canvas, and a portion of the militia of the several States, as shown in the accompanying table, were assembled for periods of ten days or less.

REGULAR TROOPS AT CAMP OF INSTRUCTION, PINE CAMP, N. Y., FROM

JUNE 15 TO JULY 15, 1908.

One-half Company C, Hospital Corps.

Companies E and H, Second Battalion of Engineers.

First Squadron, Eleventh Cavalry.

Headquarters and Troops F, G and H, Thirteenth Cavalry.

Troops E, G and H, Fifteenth Cavalry.

Headquarters Second Battalion and Batteries D and E, Third Field-Artillery.

Companies A, C and D, Fifth Infantry.

Headquarters, Band, and Companies A, B, D, E, F, H, I, K and L, Twelfth Infantry.

Headquarters, Band, and Companies A, B, D, F, G, H, I, K, L and M, Twenty-fourth Infantry.

NATIONAL GUARD AT CAMP OF INSTRUCTION, PINE CAMP, N. Y., DURING
FIRST PERIOD, FROM JUNE 15 TO 25, 1908.

Cavalry—

Squadron A, National Guard, N. Y., June 14th to June 24th.

Squadron C, National Guard, N. Y., June 14th to June 25th.

Troop B, National Guard, N. Y., June 15th to June 25th.

Troop D, National Guard, N. Y., June 16th to June 25th.

Field Artillery—

First Battery, National Guard, N. Y., June 14th to June 25th.

Infantry—

First Brigade, Mass., National Guard, June 14th to June 20th.

Second Regiment, June 14th to June 20th.

Sixth Regiment, June 14th to June 20th.

Eighth Regiment, June 14th to June 20th.

Twenty-third Regiment, National Guard, N. Y., June 14th to June 25th.

NATIONAL GUARD AT CAMP OF INSTRUCTION, PINE CAMP, N. Y., DURING
SECOND PERIOD, FROM JUNE 26 TO JULY 5, 1908.

Cavalry—

First Troop (Essex), National Guard, N. J., June 27th to July 4th.

Infantry—

First Regiment, National Guard, Vermont, June 25th to July 3d.

First Regiment, National Guard, New Hampshire, June 27th to July 4th.

First Regiment, National Guard, New Jersey, June 26th to July 3d.

NATIONAL GUARD AT CAMP OF INSTRUCTION, PINE CAMP, N. Y., DURING
THIRD PERIOD, FROM JULY 5 TO 15, 1908.

Infantry—

First Corps Cadets, Mass., Volunteer Militia, July 5th to July 14th.

Second Regiment, National Guard, Conn., July 6th to July 14th.

First Separate Company, National Guard, Conn., July 6th to July 14th.

Third Regiment, National Guard, Penn., July 6th to July 14th.

Fourth Regiment, National Guard, Maryland, July 5th to July 14th.

Pine Plains consists of a rather level plain of sand about $3\frac{1}{2}$ miles wide by seven or eight miles long, originally covered with pine timber, which was cut off many years ago, now replaced by an undergrowth not so thick as to seriously interfere with drills, but enough so to reduce all fighting to what is known as "bush-fighting." In addition, this terrain was heavy with sand and so nearly level as to render it difficult to select terrain suitable for the problems prepared for solution. In a word, Pine Plains fulfills one of the five conditions specified as essential for field-maneuvers, viz.: "It is naturally free from contagious diseases and has an ample supply of pure water."

Upon the whole, this maneuver camp was a success. This in spite of the obstacles that had to be met and overcome in order to secure such success. The most serious of these were:

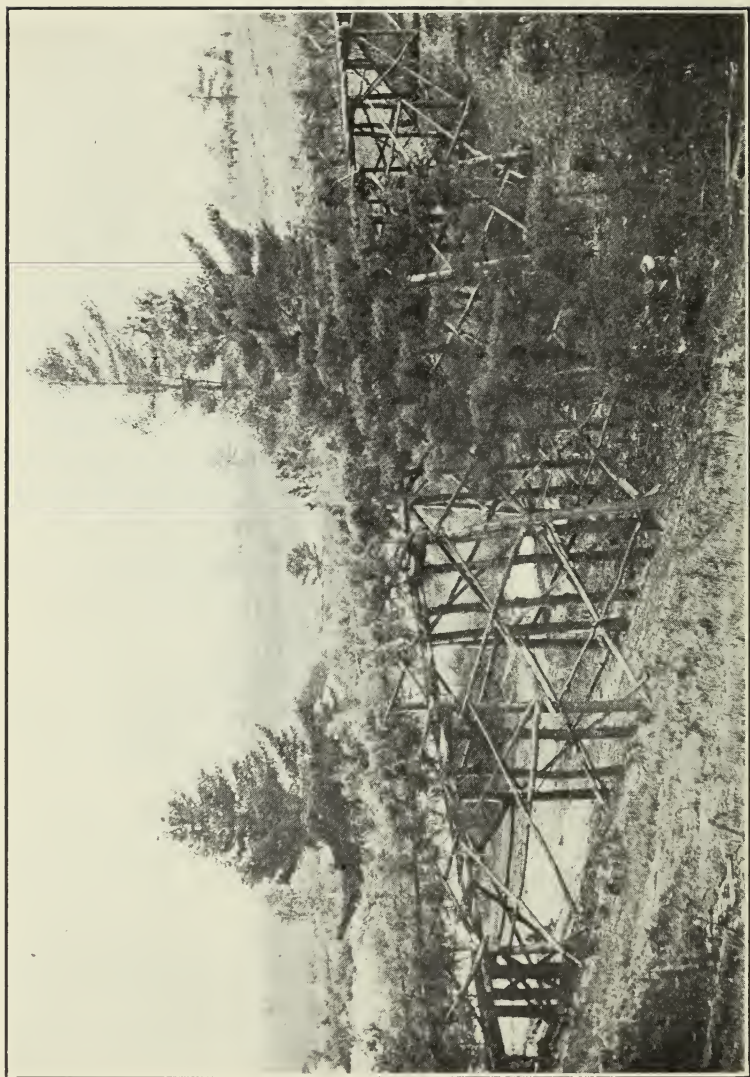


Photo. by Engineer.

COMPLETED BRIDGE BUILT BY ENGINEERS.

1st. The delay and uncertainty about the appropriation of the necessary \$1,000,000 by Congress. This did not prevent the preparation of programs of instruction. These were prepared months in advance, and all concerned were duly notified with as much detail as practicable as to what was to be expected of them in the matter of drills and practical exercises. This uncertainty and delay did, however, seriously interfere with the preliminary work of our engineers. There was not time enough after it was known that the appropriation was available, to prepare the necessary maps of the terrain, or to properly lay out and prepare the camps for occupancy. It is believed that this can be avoided in future by selecting as the year for maneuver camps, the one in which Congress holds its short sessions. This will ensure the appropriation available on March 5th, or at least three months in advance of the time for the encampment. Or if the War Department intends to depart from its announced policy of having these camps on alternate years, and have them every year instead, then Congress, being made sure of such policy, will so far assent to it as to advise the Department as to its intent to appropriate the necessary funds in time to enable all preliminary work to be satisfactorily accomplished.

2d. The inability of the commanding general of the camp to secure the number of officers needed as umpires and instructors for the militia. As everyone knows, the umpire is the recognized substitute for the bullets of the enemy, and we must have enough of them to supervise at least all units of the size of a battalion when in contact, and for each battery or platoon thereof when in action at different localities. It would be better if we had enough to assign them to even smaller units. In addition to this we must have a senior umpire for each side to coordinate and present results to the chief umpire.

3d. The inability of the War Department to furnish a company of the signal corps for use in connection with this camp was by far the most serious obstacle to be overcome. Its absence not only prevented the attendance and consequent instruction of several signal corps companies and detachments of the National Guard, but rendered all the instruction attempted in the form of problems misleading and of doubtful value, if not absolutely valueless. On the other hand, had such company been present for duty in this camp, it would have been practicable for the chief umpire, knowing the point of contact in advance, to have placed himself between the opposing forces in a central position,

and so be in constant telegraphic or telephonic communication with every unit engaged on both sides. By supplying himself with a map of the terrain and two or three assistants, he would be able to follow everything done and to absolutely control, through his umpires, the movements of these units, could determine losses, the rate of advance and the effect of fire of all kinds. This last would give all troops coming under fire absolute information as to its consequence. It would establish approximately the proper value to be placed upon the actual firing of artillery and prevent the simulated fire of machine guns from becoming and being considered a farce. In the opinion of the writer, no other organization was, or could be, more essential to the success of a maneuver camp than a properly equipped and efficient company of the signal corps, and no such camp should be established in the future without such a company being present. We have no other organization or set of appliances that will perform its functions so absolutely essential in maneuver problems.

4th. The fact that no part of the Organized Militia can be *ordered* by the national Government, but each and all must be *invited* to participate in these maneuver camps, is not only an inherent defect in the present militia law, but it constitutes a serious obstacle to the complete success of these camps. Invitations are, or at least should be, an unknown factor in all military duty. No such duty can be properly or successfully performed where any portion of command is not absolutely and unquestionably subject to the *orders* of the commander thereof. These orders must be obeyed in letter and spirit in every detail and by every one in the camp. At present this is not believed to be the case. It may be, and possibly is, true that the commander of these camps can order any individual or organization who fails to obey his order to quit the camp, but this does not altogether satisfy.

5th. The lack of suitable preparation and proper organization of the militia constituted quite an obstacle to the success of this camp. By suitable preparation is not meant that every organization shall be perfect in its drill, guard duty, etc., because it is known by all that a National Guard company may become proficient in all the instruction that is imparted at home one year, on account of having an energetic, magnetic and well-informed commander, whose loss might result in the reverse condition one year later. It does mean, however, that no company should be permitted to come to a maneuver camp which has not only re-



Photo. by Engineer.

ARTILLERY POSITION (Brown).

ceived instructions in everything that can be taught and practiced at home, but has passed through at least one State camp of instruction, where it has received instruction as parts of higher units and has learned at least the rudiments of hygiene and camp sanitation.

As to the organization, it should not be permitted to send an organization to this camp that is so filled with raw and uninstructed recruits as to constitute it practically a new organization. One colonel informed me that half of his regiment was composed of such material. The practice formerly prevalent in some States of enlisting men for the picnic to be indulged in at the State camps of instruction cannot be condemned in too strong language, and would be simply ruinous in a camp for field-maneuvers. Again, militia organizations should not be sent to maneuver camps in command of men who are so old as to have become senile, or of men who have not thoroughly posted themselves in their duties, at least theoretically, or of those who show no genuine enthusiasm about doing so. All such men are unfit for and cannot be trained for large command. In this connection it must not be forgotten that the War Department has asserted, Congress has asserted, and it is a fact that these maneuver camps are instituted for the purpose of training officers of regulars and militia to the exercise of command of large bodies in the field. To impose upon the commanders of these camps any commanders of organizations of the classes mentioned is unkind, useless and an unpardonable waste of time, talents and public treasure. It is also a waste of public treasure to send organizations above described to organizations that do not substantially comply with the requirements of proposed "Regulations for Field Maneuvers," viz.: "Troops should be familiar, not only with the usual extended order drill and battle exercises, but with the elementary principles of security and information, and the ordinary duties required of officers and men in the field." This information can readily be acquired at home stations in State camps, and in practical marches. These last have become and are recognized as an absolute essential to the efficiency of a National Guard company.

It is true that at Pine Plains much time was devoted to battalion and regimental drills, nearly four hours of the forenoons of the first six days, and it is possible that we will have to continue this, certainly at all camps containing only a division, or less, of troops, but it would be far better for all concerned if

more time could have been devoted to maneuvering larger bodies, such as brigades and divisions. It is also true that we devoted the entire afternoons of the first six days to practical instruction in advance, flank and rear-guards, in outpost and reconnaissance, and in attack and defense—two afternoons to each—but this was far too short a period in which to secure anything like satisfactory results. It would be far better to devote more time to these and less to drills in close or extended order by companies, battalions and units. We did not have time enough to impress upon our militia the important lessons of seeking cover in all sorts of terrain, and many others essential in connection with service in the field and in action.

In concluding this article, it is with sincere hope that enough has been said to induce a further study of the necessities of our militia, in order to further nationalize and render them more effective in the organization and training of the force our country must eventually depend upon for its defense. Now that our National Guard has assumed such decided political control of things military, a grave responsibility to our country rests upon them to secure a suitable, and in all respects, efficient National defense.



WEST POINT IN LITERATURE.

BY BRIGADIER-GENERAL WILLIAM H. CARTER, U. S. ARMY.

"The moon looks down on Old Cro' Nest;
She mellows the shades on his shaggy breast,
And seems his huge gray form to throw
In a silver cone on the wave below."



WEST POINT, seated in the romantic Highlands, in the shadow of Cro' Nest, and guarding, as it were, the very throat of the majestic Hudson where it breaks through the mountain barriers on its way to the sea, has been the scene of many historic incidents which have left an impress upon all who have lingered there. There is an old West Point tradition that the talented young author, Joseph Rodman Drake, conceived the quaint idea of "The Culprit Fay," as a result of a bantering wager at The Mess, that no tale of love without the human element could be made of interest. Whether this tradition be wholly true, the fact remains that young Drake received his inspiration under the shadow of Cro' Nest, and his West Point elfins, goblins, sprites and fairies will live as long as American verse receives the honor that is its due.

The literary instinct is inborn, but environment, intellectual associations and well-directed study serve to broaden and perfect the gift which makes so much for the world's entertainment and happiness. Under a rigorous analytical system of education, intended to develop logical methods of reasoning out essential facts and of clearly presenting proper conclusions, a simple and direct style of expression naturally results. When to this general training is added a personal quality, derived from a literary temperament, a happy combination ensues, the results of which may be observed in a long array of historical and purely literary work of a high type from the pens of men who have imbibed the inspiration of West Point. This influence of tradition and environment has been beautifully expressed by Schaff in "The Spirit of Old West Point":

"Very soon the monuments, the captured guns and dreaming colors—which, at the outset, are mere interesting, historic relics—beckon to him; he feels that they have something to say. Before he leaves West Point they have given him their message, revealing from time to time to his vision that field from which lifts the radiant mist called glory."

Too much science may have had a chilling effect or have entirely drowned out the literary instinct in some; it is certain that it has curtailed the army careers of many. And yet, amongst these latter are men whom the nation loves to honor with garlands of success. Whistler did not acquire all his knowledge of art during his few years at West Point, nor did he necessarily learn there "The Gentle Art of Making Enemies," but it is certain that he looked back with interest and pleasure on the years he spent in preparing for a military career cut short, as he believed, by a silly answer to a scientific question. Edgar Allan Poe, after serving in the ranks as a soldier and having received an honorable discharge, entered West Point and remained for a brief career, resembling a pyrotechnic display rather than the life of a sober-minded student. He then returned to civil life and to the field of literature, where he won success through the magnetic quality of his writings which abound in pathos, weird fancy and dramatic narrative.

Every great crisis of modern history develops its multitude of writers, but their productions seldom find any permanent abiding place in the hearts of book-lovers. Here and there a quality which is not to be measured by any fixed rules of literary criticism seals the reputation of an author and differentiates his work from that of his contemporaries. This applies not only to fiction and essays, but also to historical writings.

Every war—yes, every campaign and important expedition—has found a capable chronicler, and these writings form no small part of the original sources from which truthful history will be evolved. "Scenes and Adventures in the Army in 1859," by Philip St. George Cooke, who took a prominent part in the Utah Expedition as well as the Kansas troubles, will have equal value with his "Conquest of New Mexico and California." James Donaldson's "Sergeant Atkins," a tale of the Florida War, will be valuable as an historical side-light. John Bourke's description of Indians, their folklore, religious rites and superstitions will ever be a treasure-house to students of the vanishing race, particularly as regards their old order of life. "My Life on the Plains," by Custer, will find appreciative readers so long as the melancholy story of that sad June day on the Little Big Horn when, woefully outnumbered, his troopers stood in a circle of fire until not a soul was left to tell the story of how brave men died. Richard Dodge wrote of The Plains from personal knowledge. The life described by him in a notable book, "Our Wild

Indians," comes within the span of the present generation, yet is as completely gone as that experienced by his ancient prototype, Bonneville, another West Pointer, whose "Adventures in the Far West" were told in a fascinating volume edited by Washington Irving. These memoirs and recitals of personal experiences by flood and field constitute the natural medium for those not content with mere formal official narratives, too often lost in the dusty achives of a paper-ridden government.

The personal memoirs of West Pointers constitute a vast storehouse of history of exploration, Indian lore, frontier settlement and military campaigns. The history of the advance of civilization from the Tide Water Colonies is inextricably intertwined with that of the Regular Army which cleared the pathway and held back the savage during the swaddling clothes age of upbuilding of numerous and now prosperous commonwealths.

In the field of essays, historical monographs and history itself, West Point has played a distinguished part. The bibliography of writings of her alumni fills a large and important portion of her records of accomplishment. Her essayists have covered a wide field of effort in the pages of dignified reviews and literary magazines of acknowledged repute, as well as in scientific and special publications of recognized value in the professional world. The influence of West Point has been signally demonstrated in the writings of her graduates, who, while trained to be men of action rather than scholars and students, have left large accumulations of historical and literary work of marked vitality and usefulness.

Even to name all those who have come under the spell of West Point and later earned approval as authors would require a volume. Writers of acknowledged repute in the field of history, such as William Tecumseh Sherman, Randolph B. Marcy, George W. Cullum, Edward D. Mansfield, Roswell S. Ripley, James H. Wilson, Henry Coppeé, Emory Upton, Oliver O. Howard, Horace Porter, and a host of other West Pointers are too well known to require extended mention of their individual merits. And of the later generation there follow many of exceptional literary and historical ability, eminently qualified to carry forward the work so auspiciously begun by those who have gone before.

Amongst American humorous writers none have excelled that brilliant scholar and erratic genius, Capt. George H. Derby, who, under the name of John Phoenix, gave to the world The

Squibb Papers and his inimitable volume of *Phoenixiana*, which has recently been reprinted by the Caxton Club.

Among recent novelists Richard H. Savage, Arthur Sherburne Hardy and Charles King have found a generous recognition, each in his own peculiar field. Savage, a brilliant soldier, mathematician and all-around scholar, joined the army upon graduation, but found that his restless soul had heard the call of other lands; and although following his professional bent, he was soon sowing the seeds that ripened later into a remarkable harvest of books, probably the best know of his novels being "*My Official Wife*."

Arthur Sherburne Hardy, quitting the army to accept the chair of mathematics of Dartmouth College, found time to give to the public such classic works as "*Francesca di Rimini*," "*But Yet a Woman*," "*The Wind of Destiny*," "*Passe Rose*" and other novels. He received public recognition by appointment to the Diplomatic Corps as Minister to Persia, and later to Greece and Roumania, Switzerland, and finally to Spain, where he represented his country with the dignity and prestige generously accorded to scholarly worth.

Charles King, born soldier, of martial spirit and with much professional pride, has the inborn gift of the story-teller, and has pictured the service he knows and loves so well, in a long series of volumes. It is a far cry from "*The Colonel's Daughter*" to the "*Rock of Chickamauga*," but whether the scenes are laid under the burning sun of Arizona, in the Indian villages of the Great Plains, amid the bitter strife of Civil War, or in the tropical jungles of the Orient, King writes with knowledge born of personal experience.

One of the most accomplished scholars and writers of to-day is no less a personage than the Dean of West Point, Charles W. Larned. His numerous essays are distinguished for excellence of diction. It became the duty of this official to prepare the historical sketch of the Battle Monument erected at West Point by contributions from the regulars serving in the field during the Civil War. To the thousands who annually gaze upon that graceful shaft, a selection from the sketch may prove interesting:

"The polished monolith of granite that faces on the terreplein of West Point, the gateway of the Hudson Highlands, guarding like a giant sentinel the memory of two thousand heroes of the mighty struggle for principle, which freed a race and welded a nation, was dedicated to its sacred function on a day of mingled cloud mists and sunbursts—fit type of the dark years of battle and of the glory of the victory which it commemorates.

"This is a monument to the Regular Army of the United States, erected by brothers to brothers, not in an invidious or vaunting spirit, but with a just pride in the great work wrought by the soul that went forth from this army into the leaderless masses of noble men who left the walks of peace for the hard field of fight. The Regular Army is justified in this pride, and rightly glories in this rock-hewn witness to a work well and faithfully done, not only in the War of the Rebellion, but by these same men in exile, hardships and peril on remote frontiers amidst savage foes—the advance-guard of our civilization, the protectors of a land which they did not possess, and the promoters of a great industrial development whose fruit was not theirs. This memorial was not built by a grateful country, but by voluntary offerings from the hard-won pay of comrades in the field within hearing of the roar of battle, and in sight of the dead, whose memory it preserves."

Here and there a fleeting poem appears, but West Point can lay no claim to a Byron or a Longfellow. There is a poem entitled "West Point," written by one of those who, in the fateful days of the Civil War, when men's hearts and minds were torn with distress to determine the right, went forth to follow the path of duty as he saw it. Aside from its pathetic reference to those who had followed the Lost Cause, there is a rhythm and sentiment about the poem which entitles it to endure. 'Tis the old, old story of a college love which, in part, runs thus:

"It was commencement eve, and the ball-room belle
In her dazzling beauty was mine that night,
As the music dreamily rose and fell,
And the waltzers whirled in a blaze of light.

In the splendor there of her queenly smile,
Through her two bright eyes, I could see the glow
Of cathedral windows, as up the aisle
We marched to a music's ebb and flow.

A short flirtation—that's all, you know,
Some faded flowers, a silken tress,
The letters I burned up long ago
When I heard from her last in the Wilderness.

I suppose could she see I am maimed and old,
She would soften the scorn that was turned to hate
When I chose the bars of gray and gold,
And followed the South to its bitter fate.

But here's to the lad of the Union blue,
And here's to the boy of the Southern gray,
And I would that the Northern Star but knew
How the Southern Cross is borne to-day."

The simplicity of language, which so generally characterizes the writings of West Pointers, may be attributed to their martial training. Those who really possess the literary instinct, however,

are not hampered in expression, except in official writings, where brevity is encouraged. When a man of recognized personal merit has a message for the public, it is not the less appreciated because written in terse, forceful English. Possibly there is not a carefully rounded, high-sounding "literary" paragraph in General Grant's Memoirs, yet Americans would not, for the world, have had his book written in any other style, for they had grown familiar with his simple and direct method of expression. West Point has no apology to offer for its most successful general, when he enters the field of literature, if he may be judged by a paragraph taken at random from his memoirs:

"I would not have the anniversaries of our victories celebrated, nor those of our defeats made fast days and spent in humiliation and prayer; but I would like to see truthful history written. Such history will do full credit to the courage, endurance and soldierly ability of the American citizen, no matter what section of the country he hailed from, or in what ranks he fought. The justice of the cause which in the end prevailed will, I doubt not, come to be acknowledged by every citizen of the land, in time."

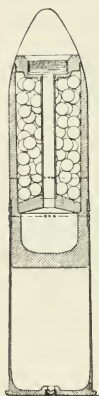
The literature and recorded history of a nation, perpetuating heroic ideals and lofty purposes, will endure when the triumphal arches of all time have crumbled to dust and mingled with the ashes of bygone centuries. With every ripple of the beautiful Hudson, as it flows silently by West Point, fitting monument to Washington's patriotism and sagacity, there goes a message to that tomb at Riverside that "All's Well." The victories of peace while less renowned than those of war, are of far-reaching consequences to the happiness and prosperity of a people. In the shadow of the sacred memories of those who have gone before, the rising generation press eagerly forward as standard bearers of the honorable name and fame of their predecessors.

"Here, where resistlessly the river runs
Between majestic mountains to the sea,
The patriots' watchfires burned; their constancy
Won freedom as an heritage for their sons.
To keep that freedom pure, inviolate,
Here are the nation's children schooled in arts
Of peace, in disciplines of war; their hearts
Made resolute, their wills subordinate,
To do their utmost duty at the call
Of this, their country, whatso'er befall,
Broadcast upon our history's ample page
The records of their valiant deeds are strown.
Proudly their *alma mater* claims her own.
May she have sons like these from age to age!"

—EDWARD S. HOLDEN.

THE TECHNICAL SIDE OF MACHINE GUN ORGANIZATION.

BY CAPTAIN JOHN H. PARKER, TWENTY-EIGHTH INFANTRY.



ON the 14th of last January the writer was directed by the Secretary of War to devise a form of organization for machine guns to be attached to regiments of infantry, to write the necessary manual or manuals for its instruction and government, to organize a provisional machine gun company to exemplify the organization and manual, was furnished as soon as practicable with all the necessary officers, men, animals, material, and was allowed unlimited opportunity to experiment with whatever forms of organization, drill, instruction or administration, might be considered advisable.

The manual thus prepared has been submitted to a board of infantry officers, and accepted by that board as the best basis for machine gun organization and instruction, for transmission to the War Department.

All the official reports on the subject of machine guns were referred as part of the data in the preparation of this work, and all the views expressed were taken into consideration. A remarkable unanimity of views was found. The proposed system is based on that unanimity, which, as might be expected from the thorough experimental preparation of the last three years, was upon an obviously correct basis, as far as that experience extended.

Naturally the service is interested to know why some of the proposals made by certain distinguished officers were rejected, why certain features of the proposed system were adopted. This discussion is an attempt to meet this legitimate inquiry with satisfactory reasons.

1. One infantry colonel proposed that the new element should be a mixed outfit, armed partly with machine guns and partly with small pieces of artillery, on the order of the pom-pom.

This was rejected because it violates the principle of homogeneity. The functions of artillery are well known. The principles on which it is organized and operated are well estab-

lished. All classes of guns using a projectile with a bursting charge, and not using the principle of *continuity of fire*, fall under the proper category of a form of artillery. To take some of these away from an arm of the service already well-organized and admitted to be most efficient, would be worse than a violation of homogeneity; it would be an intolerable reflection upon a brave, capable and energetic body of our best soldiers. Furthermore, to introduce it into the machine gun organization would be an attempt to join two elements of unlike characteristics, unlike functions, unlike instruction. To do this would be a fault in fundamental organization which would probably be fatal to the efficiency of both elements proposed. It is known that work is in progress to develop in due time a symmetrical, well-balanced, and fully-equipped body of field artillery. It is known that the use of such forms of light artillery has been duly considered by those who have this problem in charge. Every reason therefore existed why this element should not be considered in connection with the machine gun organization, and this recommendation was therefore disregarded.

Undoubtedly, there will be many occasions when this sort of artillery will be desirable and useful; and without the slightest doubt this certainty has been duly taken into consideration by higher authority. Those who read the JOURNAL OF THE MILITARY SERVICE INSTITUTION in 1903 may remember a three-cornered discussion running through several numbers, between Lieutenant Stuart, of the Engineers, Colonel Macomb, and the writer. In that discussion Colonel Macomb pointed out exactly what plans are in progress looking toward a well-balanced field artillery; plans that are happily being realized with considerable rapidity. This form of field artillery was fully disposed of in his discussion; and it seemed unwise to try to introduce a duplication of plans already settled and under way.

The suggestion probably arose from a confusion in the mind of its author as to the functions and organization of the two arms, and lack of information as to the plans already approved in that direction, and already in process of realization in another way.

2. A general officer proposed that one company of infantry should be taken from each existing regiment and equipped with machine guns.

This proposal was rejected because it attacks the very fundamentals of military organization. It would disorganize the

existing arms of the service, without any certain assurance of giving us something as good in place of what is taken away. The proper organization of infantry, into regiments of three battalions composed of four companies each, is well settled by military experience and usage as correct. To obtain it required a long, hard struggle. No development of war has occurred since we obtained it indicating that it is incorrect; but the contrary. Its fundamental correctness has been confirmed by all our own experience, and by that of foreign countries.

To adopt that proposal would be to impair the organization of every regiment in the service, reducing one battalion in each regiment to three companies, and reducing the number of soldiers of infantry in the service. We cannot afford to impair the organization of any of our battalions, not even to get machine guns. The infantry is the backbone of the army. The machine guns are not now and cannot ever become more than an auxiliary to the infantry; an important auxiliary; an indispensable one under certain circumstances, it is true; but never more than that. We need more infantry, not less; and we need our infantry, already suffering from excessive jungle duty, double that of any other part of the army, strengthened, supported and encouraged; not impaired in organization, discouraged in *esprit*, diminished in numbers. Hence this recommendation was disregarded.

3. Two officers recommended that instead of a separate form of organization the machine guns should be issued directly to the infantry and cavalry; consolidated with these arms of the service.

To an ardent machine gun enthusiast like myself this recommendation was most alluring. It would carry with it the immediate placing of a large number of machine guns in the hands of troops, with consequence forced attention to their uses which would soon result either in a perfect understanding of them or in a forced separation of them from these arms, and their segregation into a distinct element of the service. To accomplish these objects has been my study and effort for ten years. Here seemed to be a quick and easy way of attaining the desired result.

But consideration of inevitable consequences intervened. It is easy for those who are not responsible to make important recommendations, affecting the organization and administration of the whole army; but when one feels that his recommenda-

tions are likely to be acted upon he must consider them with care before giving utterance to radical views.

To act on this recommendation would mean a radical change in the composition, administration and tactical employment of both the infantry and cavalry. It would mean mixed units, where we now have homogenous units; divided tactics, where we now have simple tactics; two kinds of organization in each company, battalion or regiment, where we now have but one kind; two different, and in some respects antagonistic systems of instruction, where we now have one. Different, because the organization of a machine gun unit is essentially different from that of one of infantry or cavalry. In the latter any soldier performs exactly the same duties as any other soldier of like grade, but in the machine gun section each man soon shows aptitude for a special function, and must be permanently assigned to that function if the best result is to be attained. Different because the fundamental unit of the machine gun is the section for the service of a single piece, composed of such number of men, so assigned, as may be found necessary for the most effective service in action of that particular type of machine gun; while in the infantry and cavalry the fundamental unit is a squad of eight men, no more and no less. One machine gun requires eleven men for its most efficient service (Vickers-Maxim); another, the Colt, can be most effectively and efficiently served with a squad of only six or seven men; the Gatling requires a still different number, and other guns are still different. Conflicting, because the essential, fundamental objects to be accomplished by the two arms are different. The infantryman and the cavalryman strive to reach the enemy by hand. The bayonet and the sabre are their ultimate weapons; a battle is seldom decided until one or both of these weapons can be, if not actually is employed. The machine gunman cannot enter this phase of a combat; he acts by fire alone, and his training does not contemplate actual contact except in unavoidable emergencies.

These different and conflicting requirements produce different and conflicting conditions of service. One infantry soldier or cavalry soldier can be taken from a squad without impairing to any degree the efficiency of those who remain in the squad; but to take a pointer, a feeder, or a packer from a machine gun section impairs the efficiency of the whole section to a great degree. Now this taking of individual men away, for various

and necessary duties, is a matter of hourly and constant occurrence in the infantry and cavalry. It is the rule. Guard, fatigue and all details of duty are run in these branches by this system; and it is impossible to develop efficient machine gunmen under that system.

But graver objections exist. The efficiency of the machine gun sections might be sacrificed, if there were no other way, provided a greater degree of efficiency were thereby secured for the infantry and cavalry. But such would not be the case. This recommendation, which is a logical result of the idea of mixing machine guns in the other arms, could only result, as the platoon system has resulted, in imposing double duty on the men, and both duties would suffer as a result. We have been trying this, in a way, in the platoons, for three years. The men in these platoons, almost without exception, have been required to perform double duty. Under a machine gun lieutenant and an infantry captain, they never knew who was really their commander; under a machine gun sergeant and an infantry first sergeant, each giving orders constantly interfering with those given by the other, the men have never known their status from hour to hour, and this difficulty is one dwelt upon by every report. To carry out the proposition under discussion would only intensify this evil, to the very great detriment of both the machine guns and the rest of the service. This recommendation was therefore, very reluctantly, but very positively rejected.

Its foundation, like that of the colonel's proposition, lies in a confusion of ideas. The one was a failure to separate the functions of the different arms of the service; the artillery from the machine guns and the other arms. *The other is a failure to discriminate between technical training and tactical employment.*

This can be best illustrated by examples. The training of the signal corps is highly technical. It ranges from constructing a field telephone line to a dynamo; from the operation of a signal flag to the operation of a wireless telegraph station. To require every line officer to master this wide range of subjects of a technical character, in addition to his other duties, would be obviously absurd and impossible. Therefore, the *technical training* of the members of the signal corps is entrusted to the officers of that corps. They are responsible for it; they determine what it shall be; they attend to it in their own way, through a special organization fitted for that purpose; and when the hour of field service comes they deliver the goods. They place

a suitable detachment of signal men, suitably equipped, wherever directed by superior authority, which detachment reports there to the *commanding officer*, and he determines *what tactical employment shall be made of it*.

In this way, when serving in the Philippines as a major of infantry, I had a detachment of signal corps men, with whose technical training I had nothing whatever to do, but whose daily duties I prescribed; whether to put up a line here or there, establish a telephone, repair a line, instruct a new man as a substitute, or what not.

In this way there is a similar detachment at Camp Columbia now, under the *commanding officer for duty*, which operates a wireless station, a telephone system, and a telegraph system, besides pursuing its regular routine of instruction, all under his orders. It would be absurd to say that these men would be more effective if incorporated in the Twenty-seventh Infantry; they could not possibly be anything like so efficient as signal men if they were not instructed through the technical department of the signal corps; and it would be equally absurd to say that they are not under the authority of the *commanding officer* merely because their technical instruction is received through suitable channels.

The same illustration can be drawn from the hospital corps, from the engineers, and from every other body of troops which requires a technical training that cannot be given in the infantry and cavalry regiments as part of their routine duty.

Technical training and instruction is one thing, and it must be the best we can make it.

Tactical employment is another and different thing, and it is within the discretion of the commanding officer to whom the detachment reports for duty.

4. After mature consideration, therefore, it seemed best to divide these duties; not to take the guns away from the infantry and cavalry, not to lessen the authority of commanding officers of regiments and posts, but *in order to insure that they shall have at their disposal units which can perform the functions for which they are designed*. It is a fact that the necessary technical training for effective machine gun service cannot be given in the regiments as part of their routine duty. It is a fact that men of special aptitude, officers of special training and special talents are necessary. It is a fact that taking a company of the best infantry, a selected company, and working with three selected

officers for over six months, it has been found possible to make less than half of these men competent machine gunmen, and that with no other duties, with every sort of assistance which could be given by battalion, post, department commanders, and by the War Department, under direct instructions from the Secretary of War. This experience confirms the logical view that selected men will be necessary for machine gun service, just the same as for the signal corps, the hospital corps, or any other technical service; and that these men must be instructed by technical officers, in order that they shall become proficient in their duties.

Now, this is obviously impossible if the new element of the service is consolidated with the infantry and cavalry, or with any other existing branch of the army. All these departments have their own technical training, which is enough to occupy all the time and attention of their officers and men. Therefore, this recommendation was also rejected.

Thus was reached the conclusion that, if possible, the units of the new element to be created should exist independent of and separate from the units of the present component elements of the service.

Careful consideration of the letter of instructions issued by the Secretary of War disclosed that such a conclusion is not in any way antagonistic to those instructions, which recite that "Captain Parker will work out the proper personnel and organization for the machine guns which should be assigned to a regiment of infantry." This does not necessarily imply that such organization shall become an integral part of the regiment; only that it shall be assigned thereto. A due proportion of the medical department is assigned to a regiment of infantry, but it does not form an integral part of the regiment. That was tried in the volunteers, and was not recommended for the Regular Army. Nobody even thinks of such a recommendation. Similarly, a due proportion of engineers, signal men, artillery, cavalry, or any other special troops, is assigned to a regiment or other body of infantry when occasion requires it. It was evident that a special organization which would facilitate the technical training of the machine gun units was not at all incompatible with these instructions; and, since it was not only desirable from every point of view, but also indispensable to the efficiency of the machine guns, it was determined as the first step in compliance with these instructions to apply this principle, if possible. Adopting this as a working basis, it was evident that the close union

between the infantry and the machine guns which must exist in order to realize the full possibility of their co-operation must be provided for under the head of Tactical Employment and Administration, in that Manual of Machine Gun Service which was another requirement of the same letter of instructions.

5. The working basis, of a separate organization of machine gun units for technical instruction, these units to be attached or assigned to regiments of infantry for administration and tactical employment under the orders of the Commanding Officers, having thus been settled the next question that arose was the size and composition of these units, and the form of their administration and employment.

Tactical Employment was the simplest, for in every battle it is a fundamental principle that unity of command is essential to success. The machine guns, therefore, fell naturally under the command of the body of troops to which they were attached, or to which they were assigned. There remained only the task of formulating the general principles for the guidance of those who will have to deal with this problem; principles which will be modified by circumstances in a thousand ways that can be foreseen, and in a thousand other ways that cannot be possibly foreseen, and which, therefore, can be stated in only the most general terms. It was felt that the military experience of the world is ample on which to base conclusions of this nature, and no difficulty whatever was experienced in so stating them as to command the approval of the Board on Machine Guns.

6. But to determine an organization composed of separate units that would lend itself to these requirements, and also to those of administration and technical instruction in time of peace, was more difficult.

(a) It is the rule in our army to maintain less force in time of peace than in time of war; to arrange for an expansion for war service. It is the well-established policy of the Government, and there seemed no good reason why, if possible, machine guns should not conform to the established rule. Therefore it was settled to so organize them, if a suitable system could be devised for that purpose.

(b) The complementary unit of infantry was fixed in the letter of instructions. It was the regiment of infantry. Absolute latitude was given as to what form and numbers the machine gun organization should take; but it was to be such that it should be assigned to a regiment of infantry.

(c) A regiment of infantry is approximately 1500 men, for war. It is approximately 800 men for peace. Both war and peace must be considered, and the unit that may be entirely suitable for peace and technical training in time of peace need not necessarily be the fighting unit for war, *but must be such that we are assured of having the very best fighting machine unit for war.*

(d) The proportion of machine guns fixed for a thousand infantrymen is becoming fairly well settled in other countries. While, there was nothing in the letter to limit us to that proportion obviously to propose a standard at great variance with that generally accepted by military men would probably lead to its rejection; hence about two and a half to three and a half machine guns per thousand infantrymen are the limits between which the war organization must be fixed.

(e) Our regular army is not our war force; it is only a portion of that force. We count, under the new Dick Law, on using the organized militia in the first line, which gives us about two regiments of militia to one of regular infantry, or one regular regiment to a brigade, whether so actually brigaded or not. The machine gun complement of a brigade would be very nearly nine guns, at the established ratio, as determined by the military experience of the world; and our own experience justifies the acceptance as a principle that machine guns, like cavalry and artillery, cannot be improvised with any sure degree of success in time of emergency, but must be so organized in time of peace as to make trained units of them available for war. These units can be best obtained by a moderate expansion of the peace unit; which must therefore be some convenient number of guns under nine.

(f) Thus arose the problem of selecting some suitable and convenient number of guns less than nine, and organizing it into a peace organization capable of being expanded for war and assigned to regiments of infantry. The assignment of some machine guns to each battalion, especially when detached, is a necessity. In a brigade the assignment of some machine guns to each regiment, especially when detached, is equally a necessity. If the organization could be so effected that the same men who have tactical charge of it in peace will also have charge of it in war, that is a very desirable condition; and economy demands the smallest ratio of commissioned officers consistent with efficient organization and instruction.

(g) A unit of four guns in time of peace would require three

officers, for it would have to be split up into two platoons. We would thus obtain a ratio of three officers to every four guns, and would not obtain a unit capable of supplying a subdivision to each battalion if attached to a regiment, nor to each regiment if attached to a brigade. The number of officers would be disproportionately large, if any smaller number can be adopted by some other form of organization.

(*h*) The experience of the world indicates that in their present state of development machine guns should not be employed singly, but in pairs, at least. Accepting this principle, the smallest unit to be assigned to a regiment and capable of supplying a subdivision to each battalion of that regiment, is six guns, organized in three platoons of two guns each. This calls for four officers to six guns, a much lower ratio of officers, and an organization that is satisfactory in every respect.

But if we adopt this as a basis for war—and all our labors must be judged ultimately by the fitness of the result for war—and if we calculate on one such company for each regiment of the brigade, we should have about eighteen machine guns in each brigade, and at least twelve officers on duty with the machine gun companies. This number of guns and officers is abnormal, judged by the standard of the world's experience; and to expand our single peace company that much would undoubtedly sacrifice its efficiency just when we want it at its best. Hence some other form of expanding the peace company for war purposes was sought, which might take into consideration economy of officers and expenditures, with due regard to the proper proportion which should be accorded to machine guns in the organization of an army for war.

(*i*) The solution reached was to expand each of the peace platoons by one gun, making a company of nine guns—the correct proportion for a brigade in war—with four officers. This expansion can be quickly made when war comes, and with the minimum deterioration of efficiency; for we have the necessary officers, trained pointers and packers; we have the guns in the ordnance storehouse, and we can always buy the mules. With trained packers it is not a great task to break in green mules in an old pack train; and the few new recruits necessary will learn their business quickly from the old soldiers of the command. We know by experience that one commissioned officer can handle three guns on the offensive. Three guns makes a stronger, better unit than two guns; and one ample for a regi-

ment when the regiment is acting as a whole, whether in brigade or separately. In the case of a detached battalion, of course, a platoon would be sent, if necessary; probably from some machine gun company attached to reserve troops, or troops not posted in an exposed position at the time.

This solution seemed to meet every requirement of the machine gun service that could be foreseen, and to comply accurately with the letter of instructions. It was therefore adopted; and it was provided that in time of peace a machine gun company, composed of a captain, three lieutenants, and three platoons of two guns each, should be assigned to each regiment of infantry; that in time of *war*, each platoon should be at once expanded by the addition of one complete section, and the company thus expanded should be attached to brigade headquarters, from which its platoons should be distributed by direction of the brigade commander to his regiments. The captain is the administrative and supply officer of this company; he takes tactical control only when the brigade commander directs that the guns shall act in company, as a whole, in the battle. Being relieved of nearly all administrative detail, the platoons commanders report to the commanders of the regiments to which they are assigned, and are the tactical executives of those commanding officers, as far as relates to the machine guns in action.

This system has the further decisive advantage that the same commanding officers who handle the machine gun units in peace will have tactical control and supervision over them in time of war; for, the regimental commanders of the Regular Army in time of peace are the logical and inevitable brigade commanders in time of war, and the same officers remain on machine gun duty who were on that duty when war began.

This may not be an ideal organization; but I have been unable to see where any improvement can be made in it. It agrees with the sentiment of the army; for 119 out of the 142 reports examined, covering the views of all the officers who have been connected with the machine gun experiments of the last three years in any official capacity, were emphatically in favor of a separate organization of machine gun units for technical instruction, and of attaching them to the regiments for tactical employment. Nineteen did not report on this subject, and the other seven have been answered in the foregoing discussion. Hence it is felt that, for once, the army has become unanimous on an important issue.

7. The only question remaining is the technical instruction to be given, and how its supervision is to be conducted, and here the analogy of the signal corps and hospital corps holds good.

This question is one to be disposed of by the War Department and Congress; but some of the conditions of its solution are self-evident.

It cannot be expected that all officers of infantry will be qualified, or willing to qualify themselves, for this duty. Therefore some must be selected and set apart for it.

The proposed machine gun service must be *in addition* to the infantry and cavalry. Hence vacancies will be created. These vacancies should be distributed pro rata to the different arms of the service, in order that all may share equally in the benefit.

Whether the new officers shall be assigned to a separate line of promotion, or detailed for periods, as in the case of the quartermaster and commissary, is a question that will be settled by the policy of the Government, regardless of any recommendations I may make; but evidently some sort of examination as to the competence and proficiency of these officers for the duty should be provided for, and as this is line duty, not staff duty, there can be no objection to continuous service with machine guns. As it offers no special inducement for such work as will be necessary to prepare for it, no reason can be seen why it should not constitute a separate line, like the medical department, to be filled in its lowest grade by competitive examination from the line of the army. No second lieutenants have been recommended for the machine gun service, because it is felt that the responsibilities of officers on this duty are so great that at least five years previous experience with troops should be required before any officer should undertake them.

If the new element be limited to the infantry, the number of new vacancies necessary should not be created in the lower grades, lieutenant and captain of infantry, without a proportional number of field officers; for to do so would be to create a "Hump" in promotion, to the great detriment of the junior officers of that arm of the service, who are already at a serious disadvantage in regard to the proportion of field officers' vacancies above them.

If the field officers be allowed for the new service no reason is seen why they should not be permanently assigned to it, in order that they may become technical experts on the subject. There certainly appears to be no sufficient reason why, if field

officers be allowed, the administration of the instruction in technical matters of the new element should be entrusted to other field officers of infantry, who already have their hands full of their own duties, are not experts, and do not intend to become technical experts in machine gun service. The contrary policy is indicated, at least as far as field officers of machine gun service are concerned. They should be permanent appointments, selected by the President from those officers believed to possess the greatest aptitude for this duty, and should be assigned to Department and Army Headquarters, as are signal officers, and placed in charge of the machine gun service in order to develop it to the point of highest efficiency.

In the opinion of the writer, it would be better to make all of the officers of the machine gun service permanent appointments, in a separate line of promotion, with a technical course of instruction, backed by technical examinations, peculiar to their own line of duty. But it is realized that in this the policy of the Government will govern, regardless of any man's opinion. In so far as anyone can agree with these views, and co-operate to carry them into effect, the right hand of good fellowship is cordially extended, that all may work in harmony, as far as we agree; and at the point where our views diverge, we part in good will, each having the same right as the other to entertain and express his own opinions, founded upon the reasons that seem most logical and forcible to him. Time, the great solvent of all refractory questions, will determine what is most suitable; and until time does so all we can do is to use the best logic and reason we have and trust in Providence that all will be well for the service and the country.



THE WORK OF A CHAPLAIN IN THE MILITARY SERVICE OF THE UNITED STATES, AND THE METHODS BY WHICH IT MAY BEST BE ACCOMPLISHED.

BY CHAPLAIN CHAS. S. WALKLEY, COAST ARTILLERY,
UNITED STATES ARMY.



THE Army Regulations specifically define certain duties of chaplains in the United States Army as follows: "The instruction of the enlisted men in the common English branches of education is made by law one of the duties of chaplains."

"Chaplains will render, through military channels, monthly reports of the duties performed by them, and of all births, baptisms, marriages and deaths occurring at their stations. The report will be made on the prescribed form to the Military Secretary of the Army."

It will be observed that much more of a chaplain's work is implied than defined in Army Regulations.

A chaplain having his duties defined in the above short sentences is left to his own resources as to how they can be best interpreted and carried out so as to obtain the best results. His duties are less prescribed in Army Regulations, Manuals or General Orders, than are those of any other officer, staff or line in the United States Army.

He is morally responsible for the faithful performance of the work he may find to do as chaplain, and, it would seem, the military authority reposes a confidence in him, that, in accordance with the sacredness of his ordination vows, he is fully trusted to do his work in a way in which he believes best to accomplish the greatest results.

If he be derelict in his work, his inefficiency is soon apparent.

RELIGIOUS SERVICES.

Army Regulations provide that: "It shall be the duty of commanders of regiments, hospitals and posts to afford to chaplains, assigned to the same for duty, such facilities as may aid them in the performance of their duties."

The writer's experience has been, in garrison, field and hospital details, to have invariably received such aids and facilities cheerfully given him when he requested them.

It must not be implied that the writer waited for aids to be brought to him. Commanding officers are usually much occupied with the administration of post or camp, and the chaplain must take into consideration existing military conditions in which he may find himself, and if he be observant he will discover that his environment will often change, like a dissolving lantern picture, and will draw upon his resources of adaptability to enable him to meet the requirements of his work. Occasionally the chaplain must take into consideration temporary existing military conditions, which are self-evident that it would be inexpedient to attempt to hold a religious service, and, like the reserve during a battle, must patiently wait until the opportunity arrives for him to put forth his best energy in effective work.

If circumstances are such that the commanding officer deems it best to order a function at the same hour the chaplain has intended to hold a service, he must cheerfully give up or change the hour. He is an officer, and as such he must respect, and by his conduct emulate the virtue of, military discipline. He can usually inform himself as to the hours of calls and arrange his time so as not to conflict with the military functions. In ordinary garrison routine this is rarely necessary.

Services held on Sunday mornings should end promptly to avoid the necessity for enlisted men to leave the chapel, before the closing, to go to their dinner, as this would be a factor for non-attendance of enlisted men who otherwise might be disposed to be present.

Promptness in beginning a religious service, lecture, entertainment or song service should be strictly observed, as well as prompt closing, as this is conducive to the orderliness and in harmony with the precision of the military functions of the post or camp.

As the personnel of the post, hospital or camp is made up of men of different religious faiths, although the chaplain is a member of but one, yet, he being a pastor of the post, hospital or camp where he may be assigned for duty, will demonstrate wisdom and tact by refraining from denominational discourses, and preach the simple truth of Christianity in such manner as to endeavor to teach the same without offense. However, if approached personally on the subject of doctrine of his own faith,

he is perfectly justified in giving instruction and help to the person to the fullest extent.

The attendance of enlisted men at religious services cannot be taken as a just estimate of the good work a chaplain does for their betterment. There must be taken into account the personal meeting with men, in the daily incidents and accidents of meeting them, the words of advice, reproof, encouragement, commendation, and efforts, kindly made, to make a man have a just pride in his soldierly bearing and appearance; to cheerfully perform his military duties. These count for the moral quickening, resulting in the improvement of the personnel of the enlisted men without intruding upon the prerogatives of their officers.

These efforts of a chaplain do not appear on the monthly report, yet, like leaven in dough, the work brings results beneficial to men and the good of the military service.

RELIGIOUS SERVICES IN OUR INSULAR POSSESSIONS AND IN THE FIELD.

These services draw on the resources of a chaplain. The conditions are changed, in some ways reversed, in the tropics, as compared with posts in the United States. The environment must be considered and hours of services arranged with reference to climatic conditions. Regiments are usually divided up—rarely having more than two companies in one place. One company, or troop, may be quartered on one side of a town, another on the opposite side, or even only two or three blocks distant, but they cannot be brought together for a religious service, so the chaplain must hold services, as opportunity offers, where men are quartered.

When the chaplain is stationed at headquarters, as is usually the case, and companies of his organization are stationed on islands within the military district, he can be alert to observe or, by inquiry, learn when the quartermaster launch will deliver supplies to those stations, ask permission to go, get his service-books in hand and go to the sub-posts. On landing request that, if not interfering with functions, church call be sounded to assemble the men under some building or in a barrack, and a short service may thus be successfully held during the time supplies are being unloaded. The writer has done this many times, and with good attendances. When the heat is intense, a short service of one-half hour is most successfully held early in the morning

or after retreat. Men are apt to respond to the efforts of a chaplain, and appreciate religious services when in distant stations, and the chaplain has much that he can do to interest men. No class of men are so quick to observe what is being done in their behalf and for their good as our enlisted men. A chaplain is, at first, critically estimated, with a good deal of intelligence and a keen appreciation of traits and personal peculiarities. They quickly discern whether he has their welfare at heart or not, and are ready to appreciate his good intentions in his work.

Although the enlisted men do not, as a rule, express their appreciation of a chaplain's work by words spoken to him, or in his hearing, yet their approval or disapproval may easily be discerned. Sermons, addresses and lectures are most effective when delivered in good, common English language, simply stated so that the subject can be readily understood. Manuscript usually meets with disfavor. Extemporaneous speaking is most acceptable and effective.

HOSPITAL WORK—VISITATIONS TO THE SICK AND WOUNDED.

The visitations to the post or field hospital comprise one of the duties of a chaplain, and of great importance. It requires discretion to successfully approach the sick. When a case is serious it is advisable to consult the surgeon before attempting the visit, because he best knows the condition of the patient. If it is deemed advisable to refrain from visiting the man, for the time being, the surgeon will so decide and that closes the matter. The patient can be kept in mind and the surgeon may be again consulted, and, if the patient may be seen, he will usually cheerfully consent to a visitation.

It is an excellent plan to visit the sick and wounded every day, except when sure that there are none but temporary or minor cases, and these able to go about the wards. Such cases may be visited less frequently, but, in a large post, especially of cavalry or artillery, minor accidents may frequently occur—sometimes serious ones, so it is best for the chaplain to keep himself informed. A chaplain must judge for himself how he best can accomplish most good among the sick and wounded.

The opportunity in visiting the sick and wounded is offered for distribution of reading matter, games, puzzles, and to write letters for those unable to write; to encourage other to write to home and friends, thus manifesting a personally demonstrated

interest in the general welfare of the men. Especially beneficial is the urging of letter writing by patients in general and garrison hospitals in the insular possessions, as it is a strong factor in maintaining a feeling of contentment, and by calling the attention of the men to conditions and localities and matters of general interest, especially those differing in condition and custom from those of their home environment, as subjects of interest for letter writing tend to arouse the intellect and make them more observant. The result is apt to be that men, by these and other means, who can be made to forget their ailments will convalesce more rapidly, hasten recovery and return to duty.

One special feature, or practice, for gaining good results in hospital work, which has been the experience of the writer, is visitations to the convalescents. Especially is this so in the tropics, where recovery is slower from either wounds or disease than in the United States. They easily become discouraged, and slight relapses cause great distress of mind. The chaplain must do all that he possibly can to reassure and cheer them.

If the chaplain, on making his rounds of the wards, is requested by a patient to secure for him the visitation of a priest or pastor of his own faith, which is other than that of the chaplain's, it is his duty to comply with the request, if possible. The chief end that ought to govern such cases is the spiritual comfort of the sick and wounded.

The ministration of consolation to the sick and dying is a chaplain's privilege and obligation, appeals to him and needs no comment here. It is an occasion of deep solemnity, and of serious moment to endeavor to set at rest the yearnings of a dying man, to aid him to feel assured of reconciliation, it appeals to him, and confirms his faith to pass hence from this world into life everlasting.

Visits to the sick and wounded should be brief, and the demeanor of the chaplain gentle, confident, cheerful, encouraging.

Rules cannot be laid down for the best methods of doing hospital work, as they depend upon the individual. Thus chaplains work on different lines, according to the temperament and training of each one, and the results may be practically the same.

A CHAPLAIN'S WORK IN TIME OF WAR.

There is no condition in time of peace, in the army, that equals the opportunity of the chaplain like that in time of war. It draws upon his resources, arouses his activities and develops

demands upon him such as are unknown during the time of peace, in a garrison or on a practice march.

In the preparations for taking the field with his organization, the service-books and other supplies used in religious services, and for entertainment of the men in garrison, must probably be left behind. The question of transportation becomes a serious one. The quantity selected, even though greatly reduced, cannot, it may be, be transported within the limit of his allowance, and if no one can be found to may be willing to aid in the transportation of what he has regarded as absolutely necessary, the expediency of reduction will probably result. His best teacher is experience, and his impedimenta will drop to the minimum. The best working tools, in addition to a pocket Bible and prayer-book—if he uses the latter—will be those stored in his brain.

During marches he can encourage men to refrain from abandoning their rations and blanket rolls, warn them of the danger to their health resulting from drinking water from streams and wells before it has been boiled, hold song services, when at all possible, on land and sea, at reasonable intervals, and make short addresses as occasion offers, on the country and points of interest, historical and otherwise, where the transport may stop enroute, and destination, thus interesting and drawing attention to whatever will attract and inform the men.

A chaplain, on the eve of battle, according to the writer's experience, will be requested to write addresses of nearest relatives of both officers and enlisted men, so that, in the event of casualties, he can write a letter in each case at the earliest opportunity; also be required to be the custodian of money and valuables. A note-book is necessary for such entries, and great care should be exercised in making entries of addresses and items of property, with instructions as to their disposition, other than the return of same to their owner in event of death in battle. When this is necessary, it is best, if at all possible, to send money and valuables by registered mail, and preserve the inventory, postal receipt and postal return card in each case, which will serve as vouchers should any question arise later as to the disposition of the property.

When the troops go into action the chaplain's place is defined by conditions. He should endeavor to keep in touch with his own organization during the fight. Hospital work can be done when the firing has ceased, the dead buried and the wounded removed from the field to the hospital.

The wounded must be aided, and those who can walk urged to help themselves by going to the field hospital before physical reaction takes place and they become helpless. Ambulances are then busy with serious and helpless cases. A cheery word will often spur a man to exert himself to reach the hospital. When a man is wounded, if but slight, and unable to fight, he is an obstruction and does not present a cheerful influence, and while in the zone of fire may be further injured or killed. It is the supreme time when a chaplain's work can count for the greatest service to his country.

The mortally wounded, when possible to do so, should immediately receive the chaplain's ministration and consolation, and often he will be requested to note down a last message, and probably tokens entrusted to his care to be later forwarded to home-folk or friend.

The wounded may have to be taken to the hospital, or the dressing station, in the rear of the firing-line in the night, trenches dug and bodies buried under cover of darkness when impossible to do so in daylight during the fighting. Care must be taken to make a record, if possible, of the dead by name, rank and organization, and a brief description of the locality of the trench or grave. A copy of the record enclosed in a sealed bottle, when it can be done, should be buried with the body, as it is important as evidence of identification when the remains may be disinterred. A brief burial service should be said by the chaplain, when he is available, as it affords great comfort to the relatives of the deceased. The chaplain's duty—morally considered in such case—is to write a letter of condolence to the bereaved whose relative died in battle, of wounds or sickness. Such letters usually bring great reward in replies of gratitude for such sympathy and information.

In regard to letters of condolence regarding deaths from diseases: When inquiries are made in reply to a letter of condolence, as to the cause of death or nature of the illness, the chaplain should refrain from giving such information and refer the writer to the Military Secretary of the Army as the source of the information desired.

The chaplain's sympathy is largely drawn upon in the many individual instances he has to do with during, and just after, a fight. But he must not allow his sympathy to control his feelings. The men who have fought and came out unhurt do not care to see the somber side of the conflict. So he must carry a

smile of encouragement, and speak to them words "Well done!" They may have to fight again on the morrow!

THE POST LIBRARY.

One of the duties usually assigned to a chaplain is the charge of the post library, at the station where he is on duty. As post librarian, he is responsible for the property of the Quartermaster's Department, and is accountable for a certain number of books issued by the War Department and carried on the annual report of "Books in Post Library," by name or number of a series, and under various headings such as Travels, History, Literature, Poetry, Fiction, etc., each class by the number of volumes.

An enlisted man is usually detailed for special duty as assistant librarian, who, under the supervision of the librarian, has the charge of the library room, keeps the same well policed, looks after the fire and making the room comfortable for men to sit and read, or write, if provision and space can be had for the latter; to issue books to men to take to the barracks for a stipulated period—usually two weeks; to receive and arrange the newspapers and periodicals.

The room should be made as attractive as possible so as to encourage men to patronize the library by frequently reading the newspapers and magazines, also the books that are not allowed to be taken from the room.

There is probably no duty a chaplain has to perform that gives so little apparent return for labor as the charge of the post library for enlisted men.

A garrison of eight companies is allowed about \$50.00 for each year to pay for subscriptions for daily newspapers and weekly and monthly magazines. No provision is made for the purchase of ordinary library books. Books on the shelves are those donated, from time to time, by individuals, officers or civilians, who may be interested in supplying reading matter for the use of the enlisted men, and these books are sometimes worn and others new. Sets of volumes by popular authors are much appreciated. Good histories and standard works of fiction are read over and over. Many men are fond of good reading.

It is a misfortune and deprivation for the enlisted force of the army that no provision is made by the Congress, or War Department, to supply the post libraries with full sets of standard works and single volumes of good literature, and adding to them

a reasonable number of good books. It would do much to strengthen the contentment of the enlisted men.

Although provision is made for the rebinding of books, to be paid for out of the earnings of the post exchanges, the handling of the books by many readers usually depreciates them, with a few exceptions, so as to render them so unserviceable as to be not worth rebinding. When the library is gone over by the librarian and the worn and unsanitary books are at times condemned by the inspector-general, the result is that the average post library is gradually reduced in the number of popular and literary works. It is, therefore, rather difficult to state here, in a manner satisfactory to the librarians or patrons of post libraries, how a chaplain may best accomplish this branch of his work. But, if library buildings were provided at all posts, well lighted and ventilated, and furnished with a supply of ample shelvings, cases and tables, together with a generous stock of books in good durable bindings, and an annual addition of new books, standard works, worn out by fair usage, renewed each year, it would be a more attractive theme for a chaplain to define as to how the work could be best accomplished.

THE SCHOOL FOR ENLISTED MEN.

The chaplain on duty at a post is usually detailed to supervise the school for enlisted men. The term is from the first of November to the thirty-first of March, a period of five months with three sessions per week. A detail is made of one enlisted man as teacher for every fifteen men. The prescribed subjects taught are the rudimentary of ordinary school training, and the classes are formed according to the number of men detailed to receive instruction. Text-books, copy-books, pens, pads and pencils are furnished in abundance for all reasonable use of the men.

The men should be required by the chaplain to attend the school in neat and clean uniform, to be strictly punctual and the roll promptly called by the head teacher when the call is sounded.

At the beginning of the term an excellent opportunity is offered for the chaplain to impress upon the minds of the men their privilege and advantage in the opportunity of attending the post school, and to emphasize that the advantages offered for self-improvement are so important to them that they ought to make earnest effort to improve their opportunity, as only by

effort prompted by a desire for knowledge can the school term be a real benefit to them.

The chaplain should be present at every session and, by personal oversight, encourage and inspire men to improve in writing and mental effort.

Writing requires much patient instruction, and defects in holding the pen, posture, and arrangement of the copy-book must be corrected over and over. The length of time for this practice should not be so long as to cramp the hand. A good plan is to occasionally require the men to write letters on self-chosen topics and addressed to whom the writer may please, and the letters corrected in punctuation, expression, spelling, form, etc., by the chaplain and teachers.

Ordinary misspelled words should be spelled in concert. Demonstrations on the blackboard by the men for criticism by the class are profitable.

Instruction in history and other studies should be clear in expression, and so simplified as to be readily understood.

Although not a part of the stipulated branches required to be taught, the chaplain has opportunities to impart much information to the class during the term by delivering lectures, on an average of one each week of school, selecting the day when the least number of the roster is absent on guard, old guard pass, or other duties, so as to have the largest number present possible.

The chief subjects for lectures delivered by the writer are as follows: Our Form of Government, In Outline The Executive and Administrative—under headings: The President, How Elected; Summary of His Prominent Duties. The Cabinet—The President's Official Family and Advisers; The Departments of the Government; War Department; Postal Service; Agricultural Department, etc., etc. The Congress—Legislative Branch, Law Making—How Elected—Terms of Office; The Judiciary and Constitution. Review.

The experience of the writer is that enlisted men, with but few exceptions, know very little about the above-named topics.

The lectures should be delivered in about forty-five to fifty minutes, and treated in a simple and popular manner so as to be readily understood.

The Nature of An Oath—obligation taken at time of enlistment.

This lecture offers full scope to impress upon the men the solemnity of the act, and the heinous offense of violating the

oath, and appeals to their sacred honor as men pledged by their solemn and voluntary oath to render true and lawful military service to their country according to the Rules and Articles of War, during the period of enlistment in the United States Army.

The above lecture has resulted in a voluntary statement by men that they had not realized what they were doing when taking upon themselves the solemn obligation at the time of their enlistment, and it would seem that if all recruiting officers would prefix the oath with a statement of the importance of the act, the contract with the United States it involves, and consequent punishment fixed by law for violation of the obligation, and administer the oath with emphasis and deliberation rather than in a rapid and perfunctory manner, the impression would, it is reasonable to presume, save some men from the crime of desertion.

LOANING MONEY TO ENLISTED MEN.

Every chaplain, doubtless, has been approached repeatedly by enlisted men who wanted to borrow money. The sums requested varying from one dollar up, according to the estimate the would-be borrower placed on his success in the effort. The reasons given for the necessity of asking the favor are many and diverse.

One of the most unique that the writer has had to listen to was the request for a dollar to enable the man to send congratulations to his parents on the anniversary of their marriage.

To retain the appreciation of the men who would borrow money, the wise course is to invariably refuse to loan it. The would-be borrower will not hide when he sees the chaplain approaching, but will greet him as though the request had never been made, whereas, the successful borrower will usually keep out of his sight, and the chaplain's opportunity for doing the man any good is lost. Refunding of borrowed money is apt to be the exception, and not the rule. There are worthy cases, but they are rarely met, as such are not disposed to apply to the chaplain for loans.

Men should get along on their pay and not be encouraged to become debtors. Once behind in money matters they find it difficult to pay their obligations.

June 30, 1908.

A SUGGESTION FOR FIELD SANITARY STUDY.

BY BRIG.-GEN. A. A. WOODHULL, U. S. A., RETD.

SEAMAN PRIZE ESSAYIST. GOLD MEDALIST, M. S. I.



THE practical use made of the old marching routes and battle-grounds of the Civil War for the instruction of student officers of the line, suggests another application of the principle. Those young officers are conducted over the grounds to observe, on the spot, how the armies were maneuvered and to enforce, by a study of the terrain, an appreciation of the physical conditions leading to and influencing the hostile contact. Presumably the same party is led over the routes and along the fighting lines of both armies. Possibly in the light of knowledge after the event, the instructor points out what might have been, but was not, done at the time; and presumably advantage is taken of this topographical study to demonstrate how the altered conditions of improved firearms and the more rapid and accurate transmission of intelligence might now modify such a campaign. History is more than a recital of events; it should illuminate the present by the record of the past, and prepare the future to meliorate or avoid those conditions which certainly will recur unless the circumstances are altered.

Now why should not the Medical Corps, as a special military body directly concerned with the care of troops, also learn its own lesson on the spot? For example, the ground in front of Yorktown, which became Camp Winfield Scott, lies substantially as it did in 1862. The medical history of the siege may be developed from the official reports and maps, and from a few trustworthy civil accounts of what was done and endured. Such a history would present to the mind, in brief, but accurately, the positions of the investing army with their topography and the sanitary state of the forces. Sections of a large scale map might show those superficial features which would affect the health of the troops or the movement of the sick; that is, the surface as it was at the time, whether wooded, cultivated or fallow, and the comparative levels, the marshes, rivulets and larger streams,

and the routes of communication including those made for military purposes. This should have a statistical appendix or side index, noting as far as possible the positions of the several corps, divisions and brigades by the system of parallelograms commonly used in atlases. With some labor there might be constructed a table of the mean strength of these fractions of the command, the percentages of constantly sick (disregarding the few wounded), of present and absent sick, and those sent to general hospital, for weekly or ten-day periods. These data should all be in Washington now, ready for such compilation. Even with the cartographic feature omitted, a very fair medical history of the siege might be prepared.

After they have carefully studied such a presentation of the situation of 1862, half a dozen or more captains of the Medical Corps, with a small detachment of enlisted men (H. C.), all under a field-officer of that corps, and accompanied by an officer of engineers, should go into camp on the old site for at least a week, preferably in April. The week should be devoted to a personal study of the situation, and April is preferred in order to synchronize the climatic conditions of the survey with those of the original occupation. The function of the engineer would be to supply topographical data, not too elaborate or precise, but sufficiently accurate to determine approximately distances, areas and levels for the definition of limits and the direction and depth of drains. Each officer should bring away with him a sketch map (prepared, if necessary, with the assistance of, but not by, the engineer) of the entire locality, which shall indicate not merely the surface with its character and its grades, but the nature of the subsoil, the present height of the ground-water, and, as well as can be learned, its seasonal fluctuations. While on the ground, each visiting officer should test chemically and, in a general way, bacteriologically the potability of the water supply. He should note the prevailing winds, and from observation and by inquiry estimate the probable aggregate rainfall and the average diurnal and nocturnal temperature and humidity for April. (These meteorological data might be secured later from the Weather Bureau.) He should determine what noxious insects, if any, may infest the situation then or later. He should satisfy himself by observation how much ground would be available for camping purposes under the stress of war, and how much would be suitable for camps of concentration or observation. This calculation might be made by brigades of 3600 men each. The

military consideration that that particular situation would be untenable under modern artillery fire from the old works, should be disregarded.

Upon the return of the party from the field each officer should prepare for the President of the Army Medical School, or for the head of the Medical Department, a report in the form of a reply to an imaginary inquiry by a commanding general as to the sanitary propriety or inexpediency of occupying the ground for a term of weeks, should elective military considerations seem to lead to it. This report should not be prolix, and should consist of terse independent paragraphs, each consisting of an opinion on some particular point briefly sustained by corroborating facts, and if the opinion is adverse, concluding with a statement of what should be done if, notwithstanding, the site is to be occupied. In like manner, if the report is favorable, it should indicate in general terms what may be necessary to improve it for occupation. The inquiry may be supposed to refer to a camp for 10,000, 25,000, 50,000 or 100,000 men, as may be required. The reply should give the area available for camp purposes; the character of the site in its most obvious aspects, and then the level of the ground-water with an interpretation of its significance; a general statement of the amount and character of the water supply, the probabilities of its pollution from the presence of troops, and the sanitary measures required to mitigate or prevent that pollution, and suggestions for the disposal of waste, which might differ in the presence of the enemy from those practicable in a camp of concentration. The subjects of supply, of communication, of security, or of availability for offense should be left for other branches of the service.

Another report should be simultaneously prepared for the next higher medical authority, to embody the foregoing and also to note the character of the diseases likely to attack newly-raised troops, with an outline of measures for their avoidance or control; a scheme of the hospital accommodation to be maintained at the camp and at a base on the York River, near Fort Monroe, or at some point on the Potomac or the Chesapeake, but the James River is to be regarded as unavailable for hospital ships. Especial attention should be paid to forecasting the occurrence of intestinal and malarial diseases, with a view to their restraint or inhibition. A sanitary schedule for the employment of troops rendezvousing there, not of those engaged in hostilities, might

also be formulated. It would be futile to attempt comparison between what might follow another occupation of that site with what did occur in 1862; but a careful study of the possibilities of to-day and of the situation as met by the Army of the Potomac, should be instructive, and should forewarn those who make it of what may be apprehended in analogous circumstances.

After the party has returned, a careful review of each report, for commendation as well as for correction, should be supplied the writers, and all those officers might also be given opportunity orally to develop their views in a general discussion.

The final disposition of these reports should rest with the Chief of the Medical Corps. Several courses are open. They might simply be filed, as with other academic exercises; when especially meritorious, as a high honor, the best, so designated, with its review, might be published to the Medical Corps for its instruction; or, as a highest honor, be forwarded to the Chief of Staff, with a recommendation that it be circulated for the information of the army at large; or it might be specially commended for publication by the MILITARY SERVICE INSTITUTION. The advantages of publication would be stimulation through such a compliment, for praise yields more than blame; encouragement of practical work; and the instruction of the younger officers in the application of theory. The disadvantage of publication would be the removal of that particular situation from the field of future work. Once thoroughly surveyed and the result published, later expeditions could only study and confirm the plans, not develop anew the problem for themselves.

Camp Winfield Scott has been suggested for such a survey, because Yorktown is accessible and the region has a double historic interest. Two other encampments on the Peninsula lend themselves with almost equal facility to this study. One is that of the Chickahominy, where the Union Army lay for four weeks in May and June with its left on swampy ground in the neighborhood of Fair Oaks (a severe battle occurring there within that period), and its right on the high levels above Gaines's Mill. This area is much greater, and it would be more difficult to designate the position of individual brigades and to determine their relative sickness, but the sanitary contrast between the two sides of the river should come out strongly. Another is the great camping ground around Westover, at Harrison's Landing, which would bear study. To say nothing of the West, Virginia alone is checkered with such positions that challenge careful in-

quiry. The camp, practically a cantonment, about Falmouth in the winter of 1862-3; those on the Rappahannock and the Rapidan in the winter of 1863-4; various sections of the prolonged lines on the James from Fort Harrison (Burnham) on the right nearly to Hatcher's Run on the left might be explored. All these may be called camps of necessity, because the military situation compelled their occupation, and they have on that account a greater sanitary interest from having been crowded with human beings under the exigencies of the field. Equally instructive inquiry may be practiced by requiring these officers to report upon the comparative sanitary qualities of two or more selected sites upon which to rendezvous a corps; and this exercise may be multiplied indefinitely at a merely nominal expense to the Government.

This suggestion is offered as opening for the younger sanitary officers interesting instruction of a practical character, directly in line with one of their special functions. For it a laudable example is set in the practice marches, field evolutions and battle-field study by the student officers of the line.



THE FRENCH INVASION IN MEXICO.*

BY LIEUTENANT LUIS MONTER, MEXICAN ARMY.



THE French invasion in Mexico was originated on account of the Treaty of London, between England, France and Spain, in the second half of the last century.

England falsely alleged the non-payment of the debt of \$6,000,000 by our Government; the allegation was untrue, as the just debt of the Republic had been liquidated by the legitimate Government of Juarez.

Spain alleged, as her motive for entering into the treaty, the assassination of some of her subjects by bandits.

Our Government had already given satisfaction to Spain for these murders, and the bandits had been captured, tried and punished according to the law.

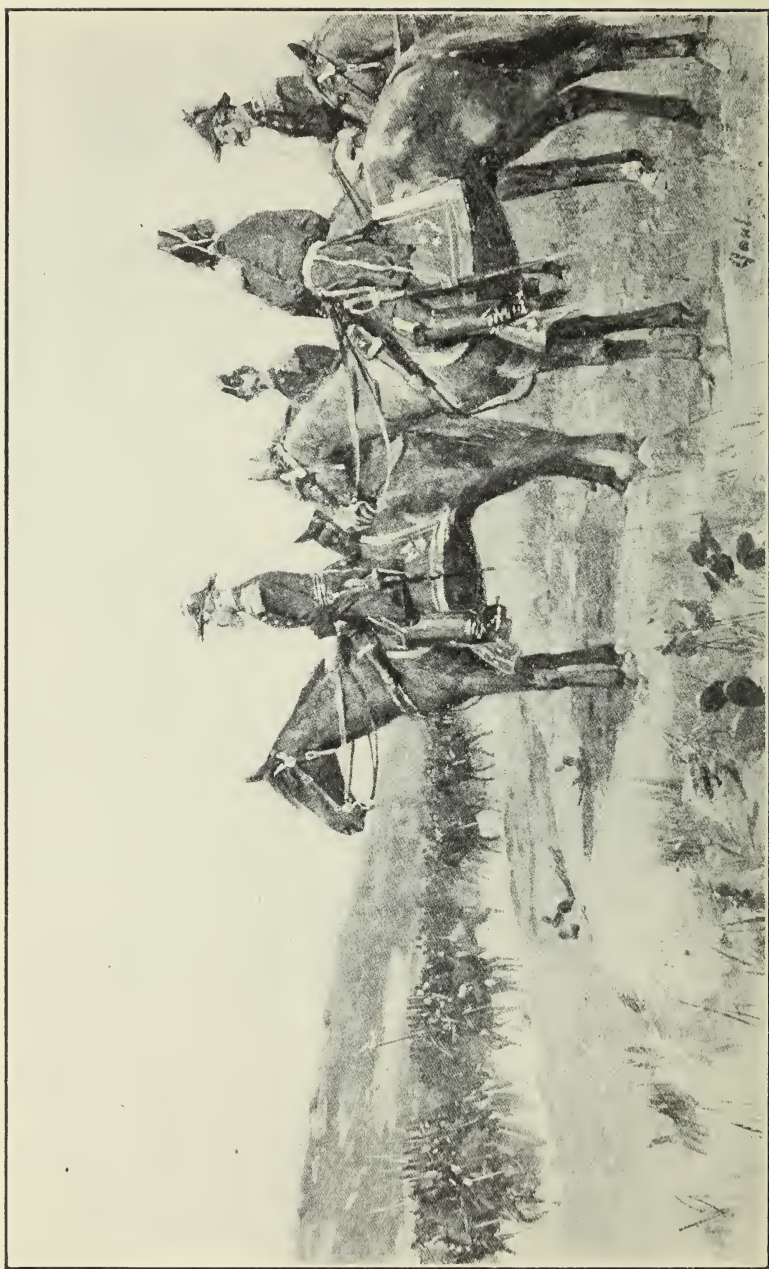
Finally France alleged some insults to her minister. None of these causes was sufficient to make war on Mexico; however, these three nations gathered together and concerted to send troops and vessels to Mexico, and exact indemnity for the alleged wrongs. Arrangements were accordingly made for the demonstration of force; but England and Spain, soon realizing the injustice of the enterprise, withdrew and left France to continue alone. The latter, in spite of the withdrawal of her allies, landed her troops at Vera Cruz, January 7, 1862.

The French troops suffered severely from the deadly climate of the coast, in consequence of which our Government, by the Treaty of "La Soledad," courteously invited them to extend as far as the high and healthy country in the vicinity of Orizaba, on condition that in the event of the commencement of hostilities, they should withdraw to their original line along the seacoast.

Negotiations lasted about one year, at the end of which, it being impossible to arrive at any agreement, our Government requested the withdrawal of the troops to their first line.

But their commander refused to comply with the agreement previously made, and said that his signature had the same value as the paper on which it was written.

*Graduating Thesis, Army Staff College, 1908.



Drawn by Gilbert Gaul.

MAXIMILIAN REVIEWING HIS ARMY.

I must state that we have always had the best of feelings toward the French people on account of race similarity; and that the conflict was begun only on account of the poor diplomacy on the part of Napoleon III.

The facts I have pointed out caused the breaking of negotiations, and then war began.

Mexico had then a small army, which was scattered throughout the country on account of the many years of intestine struggle, and her resources were few, being in the throes of two wars; that of the invaders and that between the political parties at home.

France was probably the most powerful nation of Europe on account of the prestige of her arms and her great resources.

Such was the situation of both countries at the outbreak of war.

At home, opinions were very much divided. The clergy was not satisfied at all with Juarez's administration (the legal Government), and as it was yet very powerful, it exerted much influence among the classes, and the situation was thereby greatly complicated.

The clergy desired to have a foreigner ruler in order that he might give them back their enormous landed property which had been confiscated by the Government. They had cooperated a great deal in the coming of Maximilian to Mexico; Napoleon's ambition rushed the events, and the end was the execution of an innocent—the unfortunate Maximilian.

Besides the clergy, the different parties were hostile to Juarez, and that fact gave France her opportunity to send her armies for the purpose she had announced, of obtaining indemnification for wrongs received, and at the same time to help us establish a stable form of government.

France was mistaken in her calculations; she lost a great deal of money, and her armies were diverted from their preparation for her later war with Germany.

All these mistakes were those of a single man, Napoleon III, and not those of the French people, who had no enthusiasm in the war.

Once having broken the Treaty of La Soledad, the French took possession of our main port of the gulf coast, Vera Cruz, no resistance being offered on our part.

This port was of great strategic importance to the French, as that bay constitutes an excellent naval base. The French troops,

estimated at 3500 men, under the command of General Lorencez, advanced toward Puebla, which they believed was friendly to them, and where they were severely defeated by General Lara-gozza in the memorable battle of May 5, 1862.

After this defeat the French had to withdraw toward Orizaba, where they intrenched themselves and anxiously waited for reinforcements, which they finally received two months after.

General Forey arrived with 20,000 troops, and the entire army then commenced the advance toward the City of Mexico. This advance was not so rapid as it should have been, and the delay gave time to our Government to strongly fortify the city of Puebla.

General Forey had received instructions from his sovereign as to the line of conduct he should observe in our country for the best accomplishment of his mission. These were as follows: To go to Mexico and assist in establishing a temporary form of government with people of the same country who would decide as to what should be the permanent form of régime to be established.

The French troops advanced the following year toward the City of Mexico. But they found in their way the city of Puebla strongly fortified, and their commander, who was impressed with the necessity of capturing that city, was obliged to halt and undertake its siege.

This city afforded a good point of resistance to prevent the advance toward the capital, and it was, moreover, of great strategical importance to the commander of the invading army. To capture it was for him to secure it as a base of operations; being in our power it was a continuous menace for the invading army, as it might at any time cut him off from his naval base at Vera Cruz.

The strength of the besieged was 20,000. The besiegers numbered 35,000. The siege lasted fifty-two days. The city was captured when there was not a single cartridge left; when all provisions were exhausted; in a word, when it was not possible to make further resistance.

I must here add the name of its defender, Gen. Jesus Gonzalez Ortega, who had command over many other famous generals of whom I shall speak later.

The advance toward the capital was now a very easy task, as there were no troops to oppose resistance and the legal Govern-

ment had fled north, to avoid the horrors of a siege, to the City of Mexico.

All our forces were scattered, but they were one day to be united and to accomplish their task of expelling the invaders and restoring the legal Government.

The enemy, finding no resistance, entered the City of Mexico June 10, 1863.

Juarez had established his headquarters at San Luis Potosí, and from there continued the national defense.

Without sacrifice of time, an assembly of twenty-two "notables" under the protection of France (but in which did not figure the legal Government), proceeded to vote on the best form of government. They decided to have a monarchy and elected as emperor the Arch Duke Maximilian, who accepted and arrived in Mexico June 12, 1864.

A Mexican commission went to offer him the throne, and after some preliminaries he finally accepted. His coming to this continent was his ruin.

Neither Mexico nor any other nation of the New World will ever abide the monarchical form of government.

He arrived in the capital and immediately formed his cabinet. Not a cloud appeared in the first days of his government; people in the capital loved him, and nothing could presage the terrible storm that was going to produce such ruin, desolation and sacrifice of life in our devoted country.

Maximilian had many good personal qualities and was beloved by all, but he lacked a very important characteristic of a ruler—Diplomacy.

The first days of his reign were, perhaps, the more likely to conciliate the parties and to settle the country little by little. But his failure to appreciate the situation and tactfully take advantage of his opportunity to unite the parties produced an entirely different result.

Discontent extended through his administration, and even the same French Army which was to help him became affected by it. His power lasted three years, during which the principal events were the following:

The most important one was the contract to build up the railroad between Mexico and Vera Cruz.

To public instruction was devoted especial attention.

Charitable works were carried out in the city and in the country in general.

The city was embellished in its gardens, public buildings and palaces. Equality before the law was established. Besides these measures of good administration, Maximilian invited everybody to speak freely concerning reforms which might be necessary to his administration.

While this was going on, the priests* anxiously expected to regain their immense landed property not long previously confiscated to them by the legal Government; but in this they were disappointed.

The emperor had liberal ideas in this respect, and he approved the measures adopted by the administration of President Juarez.

It was feared by the clergy that a germ of esteem for him in consideration of his proposed reforms was taking root in the breast of their enemies, and if time were allowed for such ideas to mature and propagate, they themselves would be displaced by the pressure of the Liberals, who were ready to sacrifice their ultra-Republican proclivities and concert with the emperor.

The Conservatives resorted, then, to every sort of sophistry and deception to make the emperor vacillate and, if possible, swerve from the plans he had formed.

They found him, unhappily, only too credulous and an easy victim of the arts of flattery.

They overreached his better judgment, and he discovered, only when too late, that the new laws he had enacted had caused the alienation of a considerable number of his friends, who had abandoned him to augment the ranks of the enemy. The ripening esteem of the Liberal party fell from him forever, and a system of guerrilla warfare was organized, in which the Imperial troops were harassed, until it became manifest that to conquer the country was an impossibility. It was too great an enterprise for such a small army.

Finally, as the culminating point of his errors, badly advised by the commander of the French Army, Marshal Bazaine, he issued the fatal decree of October 3, 1865, intended to terminate the guerrilla warfare, but which operated only to make him odious to our people, and was the cause of his later death at our hands.

Its nature was arbitrary and iniquitous. In a word, it stated that any person wheresoever of whatever social standing, who should assist, directly or indirectly, or form part of the guerrilla system, would be executed in the term of twenty-four hours if found guilty.

Too faithfully and fatally was the edict carried out; and many of the most prominent and pacific of our country were mercilessly put to death. It was estimated that at least 11,000 people were massacred by the Imperial troops.

Misery and desolation extended all over the country; many homes were destroyed and reduced from affluence to the lowest depths of abject poverty.

At length, the American Civil War having ended and the United States being unembarrassed thereby and free to act, the Washington Government, resolving to vindicate the Monroe Doctrine, that the territory of the New World should no longer be the subject of conquest or colonization on the part of the nations of Europe, sent an intimation, couched in unmistakable terms, to the Emperor Napoleon, that unless he at once recalled the French troops from Mexico a rupture between France and the United States must inevitably take place.

This intimation decided the withdrawal of the French troops; to this it must be added that all the nations in Europe were opposed to the war on account of injustice, and Napoleon III had been thereby bitterly criticised. At the same time Maximilian had not sent to Napoleon the millions stipulated as indemnity of war.

Their withdrawal left Maximilian in a critical position, as he had no longer a solid and real support to his throne.

Empress Charlotte went, before this withdrawal, to France to have the Emperor Napoleon keep his promise, which was to help Maximilian with troops until he could organize his own army of Mexican troops.

The Empress could not obtain any further reinforcements for her husband, and disheartened, went to Rome to beg the influence of the Pope Pius IX. Having failed in this mission, she finally went mad and remained thereafter in Europe.

The Pope resented the act of Maximilian in not giving back to the clergy their landed property, and therefore refused to intercede with Napoleon.

Before this happened, Maximilian had already made preparations to return to Europe; but an indiscretion caused his plans for leaving the country, secretly, to fail.

On the 22d of November he assembled his ministers and councillors of state to decide what steps should be taken, and, in spite of the advice given by some of his friends to abdicate, he returned to the capital from Orizaba, to which point he had gone

for the purpose of abandoning his kingdom and leaving for Europe.

The decisive struggle came after the French troops withdrew from Mexico. This movement was closely followed by the Liberals, who posted troops along the route from the capital to Vera Cruz. The entire country was now in the possession of the Juarez Government, and the Empire was reduced to the small portion of the territory and a few troops.

Again another fatal step was taken at this juncture by the falling Emperor; the recall from exile of Generals Miramon and Marquez.

These two conspicuous figures had once belonged to the legal Government, from which they had been expelled, and were cordially hated for their personal acts.

On the 30th of November Maximilian resolved to retain power and to return from Orizaba to the City of Mexico. Two months after the French troops abandoned the Mexican soil forever, and they, whose simple presence inspired a feeling of security, left the Emperor without support from any exterior source.

At an assembly of ministers held in the capital the 14th of January, 1867, the Minister of War declared that he counted on an effective force of 26,000 men. The campaign was opened by General Miramon, who marched from the capital to Zacatecas, levying, *en route*, forced loans on the towns and villages.

In this expedition Miramon was defeated on January 27, 1867, in the Battle of San Jacinto, by General Escobedo, another of our conspicuous men. He retired on Querétaro, at which place the Emperor resolved to concentrate the principal part of his army, and where he made his appearance, in the early part of February, at the head of his forces.

Immediately after his entrance into Querétaro, the Liberals besieged the place, simultaneously with Vera Cruz and Puebla, and cut off all supplies from those fortified places, which were as yet occupied by the troops attached to the Empire.

While this was going on, Marquez managed, by a skilful maneuver, to steal away from Querétaro with about 500 cavalry, with the ostensible design of joining the besieged at Puebla, who were sorely pressed by General Diaz.

He first marched to the capital to gather together as many troops as possible, and there prepared a train of artillery, am-

munition, provisions, baggage-wagons and bullion, with which to proceed toward Puebla with a bold front.

The Liberals, being watchful, did not allow Marquez to relieve Puebla, which was besieged by Diaz. The latter was very much worried about Marquez's approaching and the capture of Puebla, being of the utmost necessity for the annihilation of the Imperial forces, he carried the place by assault on the memorable 2d of April, 1867.

This event is commemorated not essentially by the success obtained by the Liberal troops, but principally by the great political advantage obtained—the inevitable downfall of the Empire.

This assault caused the sacrifice of 3000 men of our army.

After this enterprise, Diaz proceeded to encounter Marquez, who was defeated by him, and lost all his large convoy destined to reinforce Querétaro.

This defeat was the natural consequence of the action of Marquez, who, disregarding the orders of his Emperor to proceed to Mexico and return with the necessary provisions and munitions of which he was sadly in need, allowed himself to be diverted toward Puebla, with the idea of relieving that place.

The defeat of Marquez determined the surrender of Querétaro, the last stronghold of the Imperialists; the Liberals sorely pressed it and the scarcity of provisions began its slow but certain work.

Diaz, after the defeat of Marquez, proceeded to lay siege to the City of Mexico, to which the latter had retreated. The capital now suffered the horrors of a long and obstinate siege, in which famine and pestilence vied with days of battle in the destruction of its unfortunate inhabitants.

Marquez, in violating the Emperor's instructions to subsist when he himself fell, and in continuance of his bloody and cruel desires, continued the defense of the city long after resistance was hopeless and without object, and caused needless suffering among not only his supporters, but the unfortunate inhabitants.

Meanwhile Maximilian himself directed the defense of Querétaro, but all his efforts were vain, and at last the city was captured after a siege of eighty-eight days.

History says that Querétaro was betrayed by Colonel López, a supporter of Maximilian, who admitted the Juarists through the part of the line commanded by him. But it is said that the betrayal was made in accordance with the wishes of Maximilian,

who, seeing himself hopelessly lost and not wishing that more blood should be shed in his defense, and knowing that his supporters were as yet unwilling to yield, commissioned López, his best friend, to admit the enemy, trusting to time to clear the latter of treason and to make known to the world the purpose of his action.

This fact, if it be truth, reveals the kindness of heart of Maximilian and the devotion and fidelity of his best friend, and explains the nature of Maximilian's final intention.

This was the final blow to the Empire; no further resistance could be made by the Imperialists, and the fall of Querétaro determined the recovering of freedom of Mexico and her sovereignty as a free and independent state.

Immediately after this, Maximilian, together with Generals Miramon and Mejía, were imprisoned and securely guarded, but Maximilian was allowed to see, as often as he desired, some of the most prominent persons of his staff and cabinet.

Maximilian was brought to trial before the court-martial, with Generals Miramon and Mejía.

He was tried under thirteen charges, the principal ones being the issuing of the fatal decree of October 3, 1865, usurpation of the sovereignty and civil war. Found guilty, he was sentenced to be shot.

Great efforts were made on the part of all the European powers to have the penalty set aside or mitigated.

Even the Liberals, who opposed Maximilian, sympathized with him in his last hours, and all minds inclined toward mercy. But in vain; the salvation of Mexico demanded his death, as his presence in this world would be ever a disturbing factor in our politics. All intercessions failed, and the sentence of the court was carried out on February 19, 1867, when Maximilian, together with his generals, Miramon and Mejía, were led out together and executed.

With their death the troubles of Mexico ceased. Juarez peacefully occupied the presidency in 1867, and the country, recovering from the civil war and frightful desolation which had destroyed thousands of lives, suppressed commerce and agriculture, and kept the country in a state of convulsion for so many years, returned to its peaceful avocations and the restoration of prosperity and happiness.

The great figures in this tragedy have disappeared; Napoleon III, whose conscienceless ambition was the original cause

of the iniquitous subversion of the legitimate Government of our country, defeated in his European schemes, has been dethroned and died in exile; Bazaine, sentenced to death for his surrender of Metz to the Germans; Maximilian, shot to death for the mistakes of his counsellors; Carlotta, passing the remainder of her unhappy life in insanity, as yet unaware of the occurrences that widowed her.

Juarez now appears as the savior and father of his country, and the fact that he brought peace, liberty and constitutional government to us will ever cause him to be regarded as you Americans regard the father of your liberties, the great Washington.





From Ill. London News.

THE VICTORIOUS PRETENDER—MOULAY HAFID.



THE DEFEATED SULTAN—ABDUL AZIZ.

MOROCCO, AND ITS FIGHT AGAINST CIVILIZATION.

BY MAURICE DEL. DE BARNEVILLE.



IN the last few years a Moroccan problem has been added to the list, already long, of international intricacies, which heretofore included a Turkish and a Chinese "question," the French word "question" being applied with the diplomatic meaning of difficulty, which can be solved by treaties and understandings (*entente*), and as a last resort by war.

In sight almost of the Spanish coast, Morocco is at the doors of Europe, the last representative of a barbarian civilization, once flourishing all along the Mediterranean coast. Its population consists of two very different races, jointly designated as Moroccans. The aborigines are known as Berbers; they are the descendants of the "Barbari," who tried to oppose the Roman invasions, which ended with the occupation of Carthage and the colonization of that part of North Africa known to-day as Tunis.

After the Romans came the Vandals, the Moors and Saracens, then the Arabs, and these invasions succeeding each other in the course of a few centuries gradually drove back the aborigine populations to the only place where they could resist the enemy—the mountains, which, under the name of Atlas, form the backbone of Algeria and Morocco. In these mountains dwell the Berbers, not in tents, but in small brick and mud-houses, and their villages are perched like eagles' nests on the highest summits, in every strategical position; they are sedentary and get their living from the products of their fields and orchards.

The Moorish invaders, on the other hand, camp in the plains under their tents made of woven camel's hair; they are nomads, and their only wealth consists of herds of sheep and goats, besides what they get through pillage.

The whole history of Morocco derives from the distinction and antagonism between these two races—Berbers and Moors; the latter constitute the ruling power of Morocco, and the plains in which they live form the "Bled-el-maghzen" (land of the Government), while the mountainous districts inhabited by the Berbers are known as "Bled-es-siva" (land of liberty—the word

liberty for an Arab meaning the privilege of not paying any taxes if he does not feel like it).

Therefore, when the tax-collector, sent by the Maghzen, occasionally appears in the Bled-es-siva escorted by soldiers, he gets a reception which takes away from him any desire of calling again. But, as a rule, these tax-collectors leave the fortified Berber villages out of their itinerary, and make up for it by charging the faithful tribes of the plains a double amount, half of which goes into the collector's own pocket. Since their salary has never been known to be paid regularly, this system of collecting taxes on a 50 per cent. commission basis is universally applied by all agents of the Maghzen.

This state of anarchy, which has existed in Morocco for centuries, and which, in the last few years, has called the attention of Europe, derives from both the distinction of races and the geographical aspect of the country, which makes it impossible for the Shereefian Government to have any control over tribes which are sometimes located at a month's ride from the capital, Fez.

Moreover, these tribes are always at war with each other, or with organized bands of brigands like the one which has for chief the famous Rais Uli, who won a world-wide fame in 1904 by capturing Messrs. Perdicaris and Varley, the former an American citizen.

THE TWO PRETENDERS.

Another cause of trouble for the Sultan is the appearance on the scene every now and then of a pretender, or "rogghi," more or less qualified to upset the existing Government. The most dangerous in this line was, from 1903 to 1908, a certain Moulay Mohammed, who claims to be a half-brother of the Sultan, and has been nicknamed by the Arabs "Bou Hamara," father of the donkey, as he generally rides one of those animals in his expeditions.

Moulay Mohammed's commanding ways and easiness of speech have hypnotized many tribesmen, and with a number of followers, the rogghi goes from village to village, preaching the holy war against the renegade Sultan Abd el Aziz, who has thrown himself into the arms of the hated *roumis* (Christians), and has been seen in his capital, Fez, riding bicycles, driving in automobiles, playing tennis and taking photographs.

Expeditions sent by the Maghzen against Moulay Mohammed met with repeated defeats, and each victory adding to the glory of the pretender, the number of his followers has increased rapidly; he is said to be invulnerable to bullets, and, in fact, has never been known to receive a wound, although taking part in many battles.

Two years ago Moulay Mohammed received the valuable support of Bou Amama, the old chief who gave so much trouble to the French in 1881 in the south of the province of Oran, and who, after holding in check several expeditions sent against him, (column sent to Oued Guir under General de Negrier), fled to Morocco, where he still retains a considerable number of followers for whom his word is law.

Therefore, the Pretender Moulay Mohammed was, in Morocco, up to the last few months a power to be counted with, and even the Sultan's Minister of War, El Menehbi, with the pick of the Shereefian Army, was powerless to stop the rebels from camping almost under the walls of Fez in January, 1903, and thus throwing the Maghzen into a state of panic.

Since the occupation a year and a half ago of Casablanca by the Franco-Spanish forces, another pretender, Moulay Hafid, has come forth and been proclaimed Sultan by the Southern tribes; he is Abdul Azziz's own brother, and lived in exile at Mekinez by order of his young parent, the Sultan, who feared that he might disturb the peace.

He managed, however, to gather a number of supporters and claimed the title of ruler of Morocco on September 20, 1907. The diplomatic representatives at Tangier received a letter from Moulay Hafid, asking that the powers remain neutral while he was settling his dispute with Abdul Azziz; should *Allah* give him the victory, he would promote order and prosperity in the empire.

The news of the war between the two brothers during the current year showed that Moulay Hafid was steadily increasing his following, although meeting with occasional defeats, due to the untrustworthiness of some of his allies.

But the same state of affairs prevailed on a larger scale in Abdul Azziz' army, and in the spring of 1908 two of his ministers were murdered by agents of the usurping Sultan. Soon after this Moulay Hafid was proclaimed ruler of Morocco in the mosks of the northern cities, including Fez, and Abdul Azziz had nothing to do but leave his capital with a few followers and go to Rabat, where he awaited till European intervention would restore

him to his throne. But the Powers remained neutral, thus allowing the usurping Sultan to complete his work of conquest, although his envoys were refused an interview with the Prime Ministers of England and France. Germany, however, was less prejudiced against Moulay Hafid, and after his decisive victory over the Shereefian army at Settat on August 19th, a notification came from Berlin that Moulay Hafid was recognized by Germany as the rightful Sultan of Morocco. This came as a complete surprise to France, England and Spain, who, having given up all hope of seeing Abdul Azziz regain his authority, were engaged in elaborating a programme of demands to be presented to Moulay Hafid for the safeguarding of American and European interests in Morocco. But as Germany has made known her acceptance of the new Sultan before he has given any guarantee that he will adhere to the articles of the Algeciras convention, there is no telling what the outcome of this diplomatic imbroglio will be. Although it was reported in the early part of September that one of Abdul Azziz' chiefs, Mtougi, had won a victory over Kaïd Glaoui, Moulay Hafid's lieutenant, it is improbable that this belated success will change the course of events that have brought about the rightful Sultan's downfall, and on the date of writing it was rumored that Mohamed el Mokri, Abrul Azziz' minister of foreign affairs, had arrived in Tangiers to negotiate his master's abdication with the diplomatic representatives.

Up to now, in the recent outbreak, the other pretender, Moulay Mohammed, has not given sign of life in the Eastern region, which is his field of operation, and he is probably, like Rais Uli, watching the next move of the two Sultans.

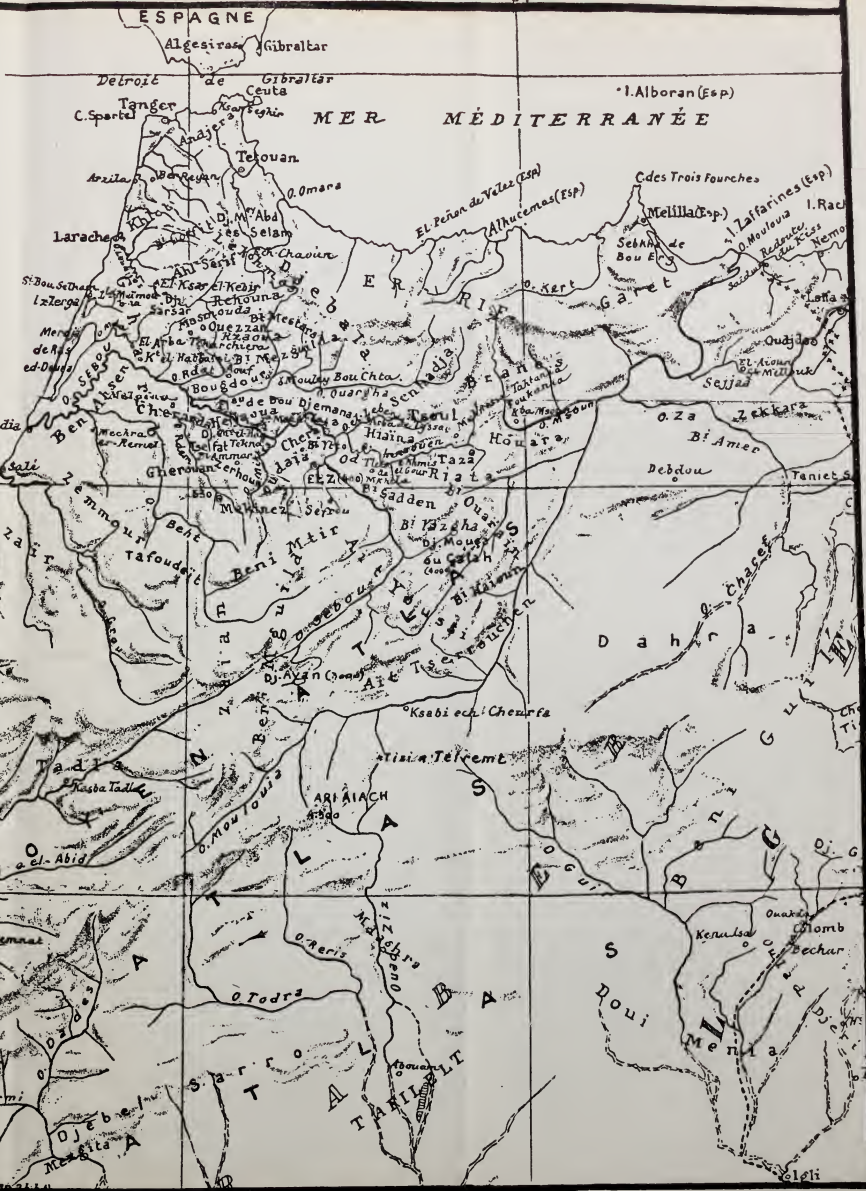
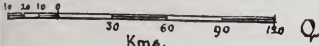
Last year Rais Uli played a little game of his own with the Maghzen and the British Government; he captured the Kaïd Harry McLean, the Scotch adventurer and former officer of the British Army at Gibraltar, who is greatly responsible for the introduction in the Sultan's palace at Fez of whatever traces of civilization are to be found there. It was also McLean who organized the Moroccan Army on a modern footing, and thus became the Sultan's favorite adviser.

Rais Uli, in exchange for the Scotchman's freedom, wanted nothing less than the destitution of the Pasha of Tangier, who ordered an expedition against Rais Uli, the release of several of his friends now in Government jails, also an exorbitant sum of money and the rebuilding of his house in the Khmas Mountains, formerly burned down by the Sultan's soldiers. After consider-

SECTION OF MAP OF MOROCCO FROM "MOROCCO OF TO DAY"

BY MR. EUGENE AUBIN. PARIS, 1906.

ECHELLE = 1:3.000.000



able negotiations, Rais Uli's wish was complied with and McLean released in March, 1908, after a painful captivity of seven months.

Here was last August, at the time of Germany's recognition of Moulay Hafid, the whole situation showing the state of anarchy in which Morocco was struggling: (a) The central Government was represented by a weak and inexperienced ruler, who had brought the curse of his subjects upon him by throwing open to Europeans the doors of his palace. (b) The Council of Ministers opposed to reforms was made up by men to whom bribes and graft are an undisputed prerogative, and were the most important part of their attributions. (c) The tribes were and still are opposed to each other, but generally united when it comes to oppose the Maghzen and resist the tax-collector. (d) In the East was a pretender, in the South another one, in the North a bold and clever brigand chief, Rais Uli, and watching over the scene was the discordant "concert" of the European powers.

Such were the conditions in a nutshell.

Now what can be expected from such a situation? What security can be guaranteed to European and American commerce in such a lawless country? How many foreign banks could be expected to loan money to such a powerless Government, knowing that the treasury is pillaged by the functionaries from ministers down, and that the money loaned for the improvement of roads and harbors or the payment of the army is wasted on costly toys for the Sultan.

The origin of civilized intervention in Morocco can be traced back to the Thirteenth Century, but a chronology of events of a more recent date will be sufficient to show the part taken by diplomacy in the settlement of Moroccan troubles and the several campaigns brought about by the European powers to obtain their rights.

RELATIONS BETWEEN THE UNITED STATES AND MOROCCO.

Towards the end of the Eighteenth Century our great sea-captains John Paul Jones and Decatur were several times engaged in fighting the barbarian pirates which infested the coasts of Morocco and had become a danger to our traffic with the Levant.

In 1787, the United States signed a commercial treaty with Morocco after Congress had paid \$80,000 for the ransom of



TRIBESMEN STARTING ON AN EXPEDITION.

Courtesy "Bit and Spur," Chicago.

Americans taken prisoners on board merchantships and held as slaves.

In 1803 an American war-vessel, the *Philadelphia*, captured a Moorish cruiser which the Governor of Tangier had authorized to prey upon American commerce; Commodore Preble entered the harbor of Tangier with four vessels and demanded an explanation from the Sultan, who disavowed the action of the Governor, and the treaty between our country and Morocco was renewed.

SPAIN AND MOROCCO.

Spain has also had considerable trouble with the Shereefian Empire during the Nineteenth Century. Established since 1496 at Melilla, since 1580 at Ceuta and since 1673 at Allucemas, Spain has had many causes of complaint against Morocco—pillaging of merchantships, violation of Spanish territory, capture of Spanish subjects, and in 1844 the murder of Victor Darmon, a consular agent, by order of the pacha of Mazagran.

Following this incident, the Spanish complaints to the Maghzen brought England to the scene, and her ambassador at Fez, Sir Drummond Hay, played the part of mediator. This was done to prevent Spain from getting too many advantages from the Maghzen. Little satisfaction, therefore, could be obtained, and Spain, fearing to get herself in trouble with England, declared herself contented and signed an agreement with the Maghzen on August 25, 1844.

In 1848 Spanish troops occupied the Zaffarines Islands, in the Mediterranean Sea, a few miles from the Algerian coast.

In August, 1859, the Andjera tribesmen attacked Ceuta, killing a number of Spanish soldiers. Spain immediately demanded from the Moroccan Government an apology, the punishment of the guilty parties and the privilege of extending the limits of Ceuta. After holding back his answer for several days, the representative of the Maghzen, Si Mohammed El Khetib accepted the two first conditions, but refused to compromise on the third one. Her patience having come to an end, Spain decided to act, and war was declared. At this time the English press denounced a Franco-Spanish alliance to divide Morocco. An army of 50,000 men, under General O'Donnell, landed at Ceuta in November, 1859, while a fleet bombarded Tetouan, Tangier, El Araïsch. A great victory at Tetouan on February

8, 1860, ended the war, and a treaty was signed on April 26, 1860.

On May 31, 1865, a convention was signed in regard to the lighthouse at Cape Spartel; the powers signatories of this act were Morocco, Austria, Spain, United States, Belgium, Great Britain, France, Italy, Holland, Portugal and Sweden.

Representatives of these same powers, with the addition of Russia, met at Tangier in 1880, on the invitation of Morocco, to discuss the right of protection, but the conference adjourned and met a few months later at Madrid, where, on July 3, 1880, an agreement was signed regulating the right of protection. By obtaining the privilege of foreign protection, certain natives employed by the diplomatic corps as interpreters, secretaries or servants were exempt of paying taxes and escaped the jurisdiction of their country.

However, the right of protection had, in the course of time, been extended to many influential persons who had nothing in common with the foreign legations; and to limit the number of beneficiaries the Maghzen obtained from the powers that they should meet in conference.

Under the presidency of Mr. Canovas del Castillo, then Spain's foreign minister, the representatives of the twelve countries above mentioned drew up a protocol regarding the rights of protected subjects; also the acquisition of land and payment of land taxes by foreigners, and at last the naturalization of Moroccan subjects in foreign countries.

In 1893, in the Riff region, Spain was erecting a fort on territory belonging to her by right of the treaty of April 26, 1860; a native cemetery was on the same ground, and the Moors claimed that it had been profaned; they attacked the small garrison and killed its commander, General Margallo.

Immediately, 25,000 men were sent from Spain under Martinez de Campos; after a few months of an exhausting campaign, the Spanish Government, anxious to put an end to a costly expedition, decided to make peace and a treaty was signed at Marrakesch in March, 1894; the conditions were the payment of an indemnity of four million douros and the punishment of the Riff tribesmen.

FRANCE AND MOROCCO.

France became involved in Moroccan politics towards the middle of the Nineteenth Century. She was at the time fighting

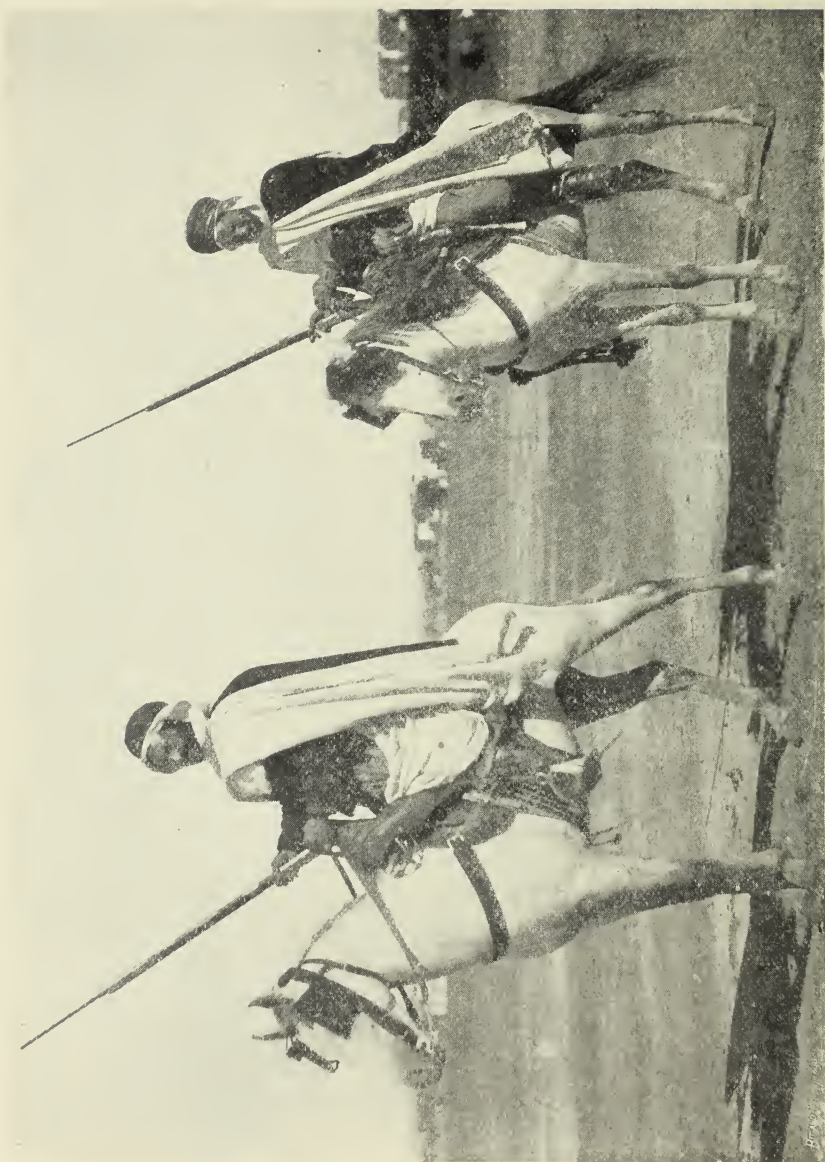
in Algeria the *emir* Abd el Kader, who, after resisting the French invasion, was hopelessly defeated at Taguin by the Duc d'Aumale, and fled to Morocco under the protection of the Sultan Moulay Abderrhaman. The French then began to fortify Lalla Maghnia, a small town in the province of Oran, two miles from the Moroccan border. The Sultan of Morocco claimed that Lalla Maghnia could not be fortified without his consent, and on May 30, 1844, General de Lamoricière was attacked in his camp of Sidi Azzis by Moroccan horsemen from Oudjda.

A report of this violation of territory was sent to Paris, and Mr. Guizot, minister of foreign affairs, gave instructions to Mr. de Nion, consul-general at Tangier, to make the following demands to the Maghzen: Apology for the attack, withdrawal of Moroccan troops from Oudjda and delivery of Abd el Kader to the French authorities; it was added, however, that France did not intend taking any Moroccan territory.

But the Maghzen gave no heed to the French claims; a few days later the Admiral Prince de Joinville appeared before Tangier and Mogador, and bombarded the two towns, while Marshal Bugeaud conducted an expedition against Moulay Mohammed, a son of the Sultan. The Moroccan camp was situated between Oudjda and Oued Isly, where a great battle was fought. It turned out to be a French victory and brought the Sultan into submission. The news of this success was received with little enthusiasm in England, where the press did not disguise its ill-feeling against France. On September 10, 1844, the Treaty of Tangier gave full satisfaction to the French ultimatum and outlined a settlement of the long-disputed Algerian-Moroccan border question. No war indemnity was asked, and the public opinion in France was that, to avoid trouble with England, little advantage had resulted from the campaign.

Two officials, General Count de Larue and Si Almida ben Ali, were appointed by their respective Governments to determine the exact border between Algeria and Morocco. Instructions given to General de Larue by Minister of War Marshal Soult were that the frontier should remain the same as at the time of the occupation of Algeria by the Turks.

After this expedition several violations of territory occurred from time to time. In 1859 the Angad, Beni-Snassen and Mehaia tribes, having crossed the border line to attack Algerian tribes, an expedition under Colonel de Martimprey was sent



Courtesy "Bit and Spur," Chicago.

TWO WARRIORS OF THE ALGERIAN BORDER.

against them, and the Moroccans were defeated at Ain Taforalt on October 27.

In 1870 a formidable uprising of the tribes in the south of the Oran province (Ouled-sidi-cheick, Beni Guil, Doui-Menia, Ouled Djerir) obliged the French Government to send 3000 men, under Generals de Wimpffen, Chanzy and de Colomb, to quell the disturbance. The uprising had been at the instigation of the Shereefian Government, and Moroccan agents went as far as El Golea, where the rebellion was nipped in the bud by General de Galliffet. After the Franco-Prussian War of 1870-71, the influence of France had considerably diminished in Morocco, and her prestige received a shock from the effects of which it took her a quarter of a century to recover.

At the Convention of Madrid in 1880 France was represented by Admiral Jaurès. A fact worthy of notice is that the German Foreign Minister, Prince Von Hohenlohe, notified the French Ambassador at Berlin, Count de Saint Vallier, that he had instructed his representative at Madrid to stand by Admiral Jaurès on every question and argument. According to Bismarck, Germany had then no interest in Morocco.

The ten years that followed the Convention of Madrid were not marked by any important event.

But towards the end of 1891, some tribes, in revolt against the Maghzen, surrounded Tangier; the European residents asked for protection, and France, England, Italy and Spain sent war-ships, but nothing happened.

A commercial treaty was signed between France and Morocco on October 24, 1892.

On October 9, 1896, some pirates of the Riff pillaged a French boat and captured its crew; the torpedo-boat *Iberville* was sent after them, and with the intervention of the Shereef of Ouazzan, a French-protected chief of high rank, the prisoners were released without ransom.

Similar attacks were made upon Portuguese and Italian boats in 1897 on the Riff coast; war-ships were sent and the prisoners exchanged for a ransom.

The same year a dispute occurred between the Governor of Oudjda and the Angad and Mehaia tribes over the payment of an indemnity to Algerian tribes which had been pillaged. The two Moroccan tribes, defeated, passed over on Algerian territory, and for several months were encamped near Lalla Maghnia,

where the Governor-General of Algeria sent troops to disarm and watch them.

A few years after this, in March, 1901, the attack on the French post at Timmimoun, in the south of Oran, by Moroccans of the Beni-Guil tribe, induced Foreign Minister Delcassé to call the attention of the Maghzen to the fact that the Border Agreement of 1845 had been violated, and that a more recent understanding as to the determination of the border between Algeria and Morocco was highly desirable. To settle the question, a commission was appointed by the Maghzen to go to Paris; its chief was Ben Sliman.

The following year the Pretender Moulay Mohammed began to be heard of, winning victory after victory over the Sultan's troops sent against him. On April 15, 1903, he occupied the town of Oudjda, eight miles from the Algerian frontier, after the Sultan's uncle, Moulay Arafa, had hurriedly left it to seek protection on French territory. This prince was escorted by a detachment of cavalry to Nemours, from where he sailed back to Tangier.

A few weeks later, on the 31st of May, the Governor-General of Algeria, Mr. Jonnart, while on an inspection tour of the southwestern region, was attacked near Figuig by a Moroccan tribe; the troops forming his escort repulsed the attack, and artillery bombarded the village (or *ksar*) of Zenaga.

As a proof that the Maghzen recognized the impossibility to stop the anarchy that threw the empire into confusion, the Sultan called upon France to occupy Oudjda, which was then in the hands of the pretender, but the offer was declined.

Permission was given, however, for Moroccan troops to land at Nemours (Algeria) and cross over to Oudjda through French territory. To complete this scheme an army, led by El Menehbi, minister of war, was to leave Fez and advance from the West towards Oudjda, where the pretender would thus be caught between the two armies.

To show what part France took in helping to carry out this plan, it is known that three field-artillery guns, with ammunition, were sold to the Sultan by the French War Department, and that eight artillerymen of the Regular Army were detailed on special duty to show the Moroccans how to handle these guns. Furthermore, three French army officers were attached as instructors to the Moroccan Army that landed at Nemours, while a similar party under Colonel de Saint Julien was instructing the Shereefian troops at Fez.

A few weeks later, in August, 1903, Oudjda was occupied by the Moroccan troops without a shot being fired, as the pretender had fled southward to join his ally, Ban Amama.

FRONTIER INCIDENTS IN 1903-1904.

Meanwhile, French posts had been repeatedly attacked in the south of Oran, and small detachments had suffered heavy losses; Hassi-Djahber, Taghit, Mounkar, Ben Zireg had been the scenes of bloody and sometimes disastrous encounters between French troops and Moroccan tribes, while Algerian tribes, under French protectorate, had suffered from the *razzias*, or pillage, which is practiced on a large scale by their Moroccan neighbors.

The position was becoming untenable, and the French Ambassadors to London, Madrid and Rome had prepared the way to a series of "understandings" relative to the Moroccan situation.

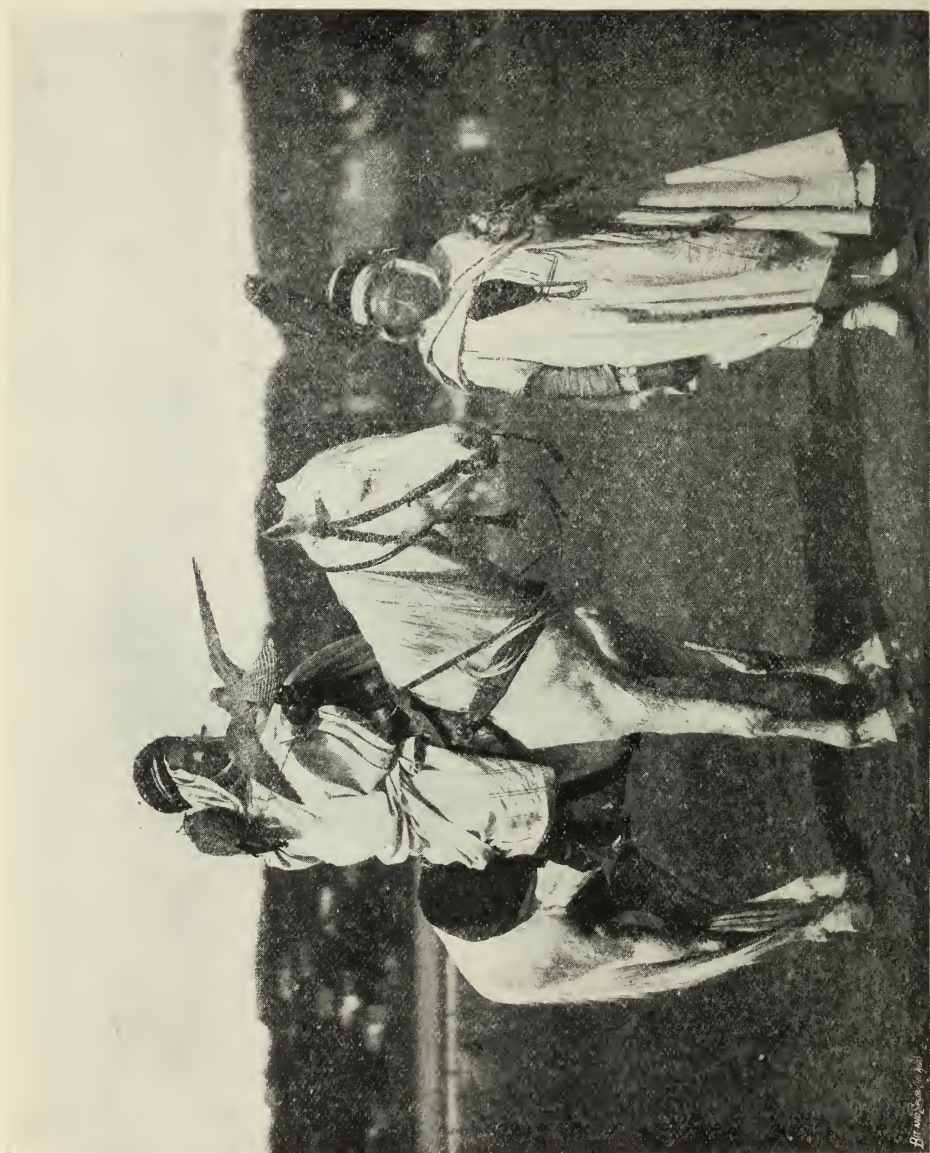
On April 8, 1904, a Franco-English declaration concerning Egypt and Morocco was published; it embodied the guarantee that France will not interfere with England's policy in Egypt, while in return Great Britain promises to let France free in her work of reorganizing the Moroccan Army and introducing financial and economical reforms in the Shereefian Empire. Commercial liberty of all nations will be respected in Egypt, as well as in Morocco. A special article acknowledges the special situation made to Spain by her possessions in Morocco.

CAPTURE OF MESSRS. PERDICARIS AND VARLEY BY RAIS ULI.

A complication was caused at this time on May 18, 1904, by Rais Uli capturing Messrs. Perdicaris, an American citizen, and Varley, an Englishman.

The American Consul at Tangier, Mr. Gummere, wrote to Mohammed Torrès, representative of the Sultan, asking for the immediate release of the two prisoners. Rais Uli answered by sending his conditions, which were exorbitant: destitution of the pacha at Tangier, withdrawal of the Shereefian troops garrisoned at Tangier, payment of a ransom of 350,000 pesetas and imprisonment of several of Rais Uli's enemies.

At the request of Mr. Gummere, the French Minister asked the Shereefs of Ouazzan to intercede with Rais Uli. These



Brayton, Ill.

FALCONERS READY FOR A HUNT.

Courtesy of "Bit and Spur," Chicago.

Shereefs, Moulay Ali and Moulay Ahmed, are French-protected subjects and, perhaps, the most influential and respected people in Morocco; they are descendants of the prophet Mohammed, by his daughter Fatimah, and Moulay Ali's mother was an English woman.

However, Rais Uli's answer was that he would increase his conditions if they were not promptly accepted, and were they refused, he would kill his prisoners.

The following week two American war-ships arrived at Tangier, and finally the Maghzen agreed to treat with Rais Uli, and Messrs. Perdicaris and Varley were released on June 25, 1904.

SITUATION IN TANGIER ALARMING.

Meanwhile the condition of foreigners in Morocco, even in Tangier, was becoming alarming, and the British residents were sending a petition to Lord Lansdowne, asking that war-vessels be sent to Tangier. The Italian Consul, as dean of the diplomatic corps, asked Si Mohammed Torrès that a better protection be given to the foreign residents.

Two French war-ships arrived at Tangier on July 26 to calm the European population, and a few French officers were sent as instructors to reorganize the garrison of the town, while Ben Sliman, in behalf of the Sultan, gave assurance with that crafty Oriental diplomacy that characterizes all the dealings of Mohammedan people, that everything would be done to give the foreigners a guarantee of safety. Ben Sliman also told of his master's good will to cooperate with the foreign agents sent to rearrange the police and customs of the empire.

On October 6, 1904, an agreement was signed by France and Spain relative to the extent of their respective interests in Morocco, and proclaiming their intention to respect the integrity of the empire under the Sultan's sovereignty.

A few days later the French Ambassador at Berlin communicated the terms of this agreement to Foreign Minister Baron von Richthofen, adding that it was in accordance with the Franco-English understanding of April 8, 1904.

A FRENCH MISSION GOES TO FEZ.

On January 11, 1905, a French mission left Tangier, arriving at Fez the following week; England had already sent a similar embassy to the Shereefian court (Sir Gerald Lowther), and

Germany had appointed Count von Tattenbach to proceed to Fez and be the champion of German interests in Morocco.

Moreover, the Kaiser made known his intention to stop at Tangier on his Mediterranean cruise.

THE KAISER'S TRIP TO TANGIER AND HIS SPEECH.

This sensational event occurred on the morning of March 31, 1905. Landing in great ceremony, followed by a score of high dignitaries and officers, the Kaiser went to the German Legation, where he received the representative and uncle of the Sultan, Moulay Abdelmaleck.

The Emperor addressed him as follows:

"It is to the Sultan of Morocco, an independent sovereign, that I am paying a call; I hope that under his sovereignty Morocco will remain open to a pacific commercial competition between all nations, without any favoritism, and on a basis of perfect equality. My visit to Tangier has for object to make it known that I am decided to do everything in my power to protect German interests in Morocco."

It was clear to all that the purpose of this speech was to counterbalance the Franco-English and Franco-Spanish understandings, and the following day three German papers advocated a conference of all the power who took part in the Convention of Madrid in 1880, in order to settle the Moroccan problem.

DELICATE SITUATION CREATED BY THE KAISER'S SPEECH.

The Kaiser's declaration had, in Europe, the effects of a bomb. France especially was greatly incensed by the action taken by Wilhelm II. The newspapers took up the argument, and some editorials in both France and Germany hinted at the possibility of war between the two countries. In fact, a certain activity was shown in military districts, and under the pretext of maneuvers, troops were rushed to the frontier on both sides.

RESIGNATION OF FOREIGN MINISTER DELCASSE.

To put a stop to such an alarming situation, and after conferring with the representatives of the powers, France agreed to consider the proposition of holding a conference, although on June 6th, Mr. Delcassé, rather than accept the conference propo-

sition to which he had always been opposed, had sent in his resignation as foreign minister, and Mr. Rouvier, president of the Council of Ministers, took his place in office.

At this stage of the game, in August, 1905, an Algerian subject, Si Bouzian El Miliani, was imprisoned at Fez by the Kaïd of Ouled Aïssa. Mr. Saint Rene Taillandier immediately asked Ben Sliman to have the prisoner released, the guilty Kaïd discharged and an indemnity paid. Ben Sliman referred the case to the Sultan, who refused to give France satisfaction, claiming that all Mohammedans residing in Morocco were under his authority and jurisdiction.

The French Government threatened to recall its minister at Fez and obtain by other means what she could not gain through diplomacy. This meant war, so the Maghzen gave in and accepted the French demands.

But this deplorable state of affairs was an encouragement to highwaymen and brigands to continue their attacks on foreigners. In October two British officers off a merchantship were captured near Ceuta, and their freedom had to be bought by releasing several noted criminals who were imprisoned in the Kasbah of Tangier, among them being Valiente, a notorious bandit.

At last the conference met at Algeciras, in the first days of January, 1906, under the presidency of the Duke of Almodovar, Spain's Foreign Minister. The discussion of the reforms was long and tedious; Germany raised many objections, but finally, on March 31, the agreement was signed. Morocco was to be policed by native troops under French and Spanish officers, who are jointly answerable to the Sultan and to the diplomatic corps at Fez. The chief of police was to be a Swiss officer. In Tangier and Casablanca both Spain and France were to have officers, while Spain would have the exclusive officering of Tetuan (Mediterranean sea) and El Araïsch (Atlantic), and France that of Mogador, Saffi, Mazagran and Rabat on the Atlantic. This police agreement was to hold for five years.

A special surveillance was to be established to prevent the smuggling of fire-arms and ammunitions.

In the financial line, France gets a substantial plurality interest in the new Moroccan bank, holding three out of fifteen shares, of which no other European country controls more than one.

By this compromise France gets practically everything she claimed, but her pretensions to an exclusive jurisdiction in

Morocco are disallowed. Germany, on the other hand, obtains full acceptance of her championship of international interference in Moroccan affairs, but is denied any tangible advantage and gets but the smallest part in the administration of Morocco. France may be considered as the mandatory of Europe, having renounced her monopolistic claims set up by Delcassé with the assent of England and Spain.

In brief, the Conference of Algeciras has shown that if the Powers admit the German principle of internationalism, they are disinclined to invite the practical aid of Germany in the Mediterranean, and, as a result, the isolation of Berlin is once more demonstrated, the new friend, Russia, being as cold as the old ally, Italy.

A few days before the signing of the agreement at Algeciras, a Frenchman, Dr. Mauchamp, was murdered at Marrakesch, and a demand for apologies and an indemnity having remained without result, a column of French troops, under General Liautey, occupied Oudjda on March 30, 1906. They have remained there ever since.

The work of reform by the powers in Morocco was then begun, but progressed slowly. Switzerland appointed a police commander, but up to now nothing further has been done in the reorganization of that department.

Several contracts have been given: for a wireless telegraph line, for wharfs and docks in the different ports, but nothing important has been done in accordance with the elaborate program of reforms adopted by the Conference of Algeciras.

Internal anarchy has been hampering the march of progress, and the anti-foreign feeling has grown worse every day, until on July 30th, last year, several Spanish workmen employed on the new docks at Casablanca were murdered by the tribesmen who had gathered around the town. This was the signal for the Arabs to ransack Casablanca and massacre the Jews; pillage, murder and fire were raging, when a party of marines, landed from the French cruiser *Gloire*, succeeded in driving back the tribesmen beyond the walls of the town.

In Europe, considerable emotion followed this outburst of Mohammedan fanaticism, and a Franco-Spanish Army of 8000 men was sent to Casablanca. After a month of severe fighting in the outskirts of the town, it was learned that the tribes had

accepted the proposals of peace submitted by General Drude, then commander of the expeditionary force.

Meanwhile, the Sultan's brother, Moulay Hafid, who had been proclaimed ruler of Morocco by the Southern tribes, succeeded in driving his brother out of his capital, Fez, and making him escape to Rabat, where he is at the present time surrounded by a panic-stricken court, a disorganized army and without funds to repel the usurper.

While this is the internal state of affairs, political influences have prevented the French commander from taking the offensive and inflicting salutary lesson upon the insurgent tribes. General Drude, in the late fall of 1907, was relieved by General D'Armade, at the head of the expeditionary corps, and under the latter's leadership some active campaigning has been done. In several fights the Arabs met with severe losses, but as no advantage is ever taken of these successes to push forward or take sides with one or the other Sultan, the situation threatens to remain unchanged for some time to come.

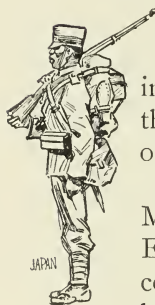
The interference of anti-military feelings in the French Parliament and the fear of European complications are such that no one can tell what the coming issue of the Moroccan problem will be.



FRENCH SPAHIS ON THE MARCH.

THE MILITARY NURSE! A PROBLEM OF DEMAND AND SUPPLY.

BY MAJOR WILLIAM S. TERRIBERRY, M.D., N. G., N.Y.,
ASSISTANT VISITING SURGEON, BELLEVUE HOSPITAL, N. Y.



THE amount of the material preparation and the numerical strength of the forces to be engaged in a possible war are military questions, and it is upon this numerical strength that the extent of the personnel of the Medical Department must be fixed.

A recent article published in the JOURNAL OF THE MILITARY SERVICE INSTITUTION* by Major Wilmot E. Ellis, Coast Artillery Corps, U. S. A., affords a convenient basis for speculative inquiry into the number's necessary and the resources available in future war on the part of the United States.

This article predicts the probable progress of a serious war with a first-class power. Major Ellis defines three lines of national defense, of which the second and third are drawn from the land forces. There is to be "A second line, consisting of specially trained troops mobilized on the sea coast. * * *"

"A third line, including one or more field armies, intended to operate in home territory in opposing armed invasion in force and to serve as a feeder for the second line. * * *"

The estimated strength of the personnel for the second line is to be 48,000† coast-artillery, 31,000‡ artillery supports (19 1/6 regiments of infantry) and a coast defense army of 191,000 men of all arms.

Complying with the Field Service Regulations as amended by General Order No. 146, War Department, Series of 1907, the actual number of the artillery supports would be 31,460. The coast defense army would be 196,250 men (10 divisions) and the total for the second line of defense would amount to a force of 275,710 men, exclusive of the personnel of the Medical Department.

**Military Necessities of the United States.* JOURNAL OF THE MILITARY SERVICE INSTITUTION, Vol. XLIII, No. CLIV, 1908.

†*Report of the Chief of Artillery, U. S. A. 1907, allowing one shift of men for all purposes.*

‡*Circular Number 17, War Department, 1907.*

The third line of defense is subdivided into five territorial armies, each composed of about 200,000 men. Assuming that each of these territorial armies was organized into divisions and army corps, with three divisions to the corps and three corps and one cavalry division to each territorial army, we would arrive at an organization for the five territorial armies of the third line of forty-five divisions and five cavalry divisions. Placing the strength of each division at 19,625* and that of the cavalry division at 13,385, we have a total for each territorial army of 190,061 and a total for the five armies of 950,305.

The total of the forces of the second and third lines would be 1,226,015 men, exclusive of the Medical Department.

The enlisted personnel of the Hospital Corps for a division is 1115 men, for each territorial army it is 10,448, and for the five armies 52,420.†

The numbers of the Hospital Corps for the second line forces are not so easily determined. Allowing the coast-artillery the enlisted personnel for an army corps, the coast-artillery supports the allowance for two divisions, and the coast defense army the allowance for ten divisions, there is a total of 16,747 Hospital Corps men for the second line. This number would probably be too small, as the commands of this force would be divided among a great number of small posts. However, the sick and wounded could be more easily evacuated, and this would to a certain extent reduce the number necessary for the hospital service.

To these numbers should be added the enlisted personnel attached to hospital ships and trains. The number of these ships and trains would depend upon the circumstances, but they should be estimated at thirty trains and fifteen ships at the least. With this number of trains and ships there would be 1410 men. The total for the entire force of 1,226,015 fighting men would be 70,577 enlisted hospital men. The number of beds and the number of Hospital Corps men who shall act as "nurses" and "ward attendants" are directed by the Manual of the Medical Department. Each division is provided with 1580 beds and 442 men who shall act as nurses and ward attendants. Our five territorial armies would have 52,180 beds and 20,380 nurses and ward attendants; the second line of defense, 23,700 beds and 6620 nurses and ward attendants, and finally the hospital train

*Strength of the Ammunition Column estimated at 129.

†Allowance of Hospital Corps men at Headquarters of Army Corps and armies estimated at seven for each headquarters. Stationary and base hospitals omitted for Cavalry Divisions.

and ship service, 9000 beds and 1050 nurses, a grand total of 84,880 beds and 28,050 nurses and ward attendants. In addition, 2070 female nurses for the base hospitals.

The ratio between the provision of beds and the provision of nurses and ward attendants is 3 to 1. In civil life the ratio between patients and nurses as shown by the reports* of the Bureau of the Census for the year 1904 was 3.27 to 1.

It is interesting to compare the provisions of the field-medical organization for an army of 1,200,000 men with the provision made in civil life for the care of the sick and wounded in the hospitals of the United States. During the year 1904 1,064,512 cases were treated in 1493 hospitals in the United States.

The number of sick reported to be in these hospitals on Dec. 31, 1904, was 71,530; the number of nurses employed to care for these cases, 21,844. Reading beds for cases, the provision of the Manual of the Medical Department is almost exactly identical with the provision that is made for the hospital care of the sick and injured of the whole United States. It is also remarkable how very closely these proposed figures of the regulations have approximated to the number of sick and wounded that have existed in actual modern warfare. The Russians, in the Manchurian campaigns of 1904-5, had a maximum strength somewhat exceeding 1,100,000 men. Although it is difficult to estimate the maximum number of sick and wounded which appeared upon the reports at any one period, it is possible to estimate that the largest numbers were after the operations about Mukden, Feb. 24 to March 14, 1905.

The official report of wounded at this period was 47,272.† Colonel Havard‡ estimated the wounded to be 100,000 in number, and Schücking,§ 61,000. From all available data the sick at the front and the cases remaining in the hospitals in the rear may be estimated at 25,000. It is therefore reasonable to believe that there were under treatment at this particular period at least 80,000 men.

These facts and comparisons prove that the field-medical regulations as an academic thesis are correct. If, however, they

**Report on Benevolent Institutions, 1904.* United States Bureau of the Census.

†*Russo-Japanese War, Reports of Military Observers.* Col. John Van R. Hoff, M. C., U. S. A., p. 111.

‡*Russo-Japanese War, Reports of Military Observers.* Col. Valery Havard, M. C., U. S. A., p. 30.

§*Noteworthy Medical Facts from Russo-Japanese War.* Dr. Alfred Schücking, translated by Major C. F. Kiefer, M. C., U. S. A. *The Military Surgeon*, Vol. XXI, No. 3, p. 248.

are to be taken as of practical application to the medical service of our future armies, an examination into the resources of the United States in the matter of trained men for the Hospital Corps is certainly in order.

The small size of the Regular Army and the limited number of the cases of sickness and injury which occur in its ranks during peace cannot afford an opportunity to train any material number of male nurses. "If hospital men are not taught and required to do nursing in peace time they will certainly never learn it during war." This observation of Col. John Van R. Hoff, M. C., U. S. A., is the exact truth. The male nurses for our future war must come from civil life. An investigation into the number of nurses who have graduated from recognized training schools in the United States must be based upon the reports of the United States Bureau of Education, as these reports are the most complete and reliable data that can be secured.

Between the years of 1880 and 1907, inclusive, there have been graduated from the training schools for nurses 55,000 individuals. Only 8 per cent. of this number have been males, and the majority of these male graduates have been trained in schools attached to hospitals for the insane, epileptic and feeble minded. It appears from these figures that only 4400 male nurses have graduated in the last twenty-eight years.

It is impossible to determine the number who have died or who have left the practice of nursing for other occupations and who have forgotten their training. That the men are very few who are now engaged in professional nursing is indicated by the significant figures of the Connecticut, Indiana and Colorado State Boards for the Registration of Nurses, Connecticut having registered 566 women and 4 men, Indiana 712 women and 5 men, Colorado 680 women and 9 men. Furthermore the number who are of the military age and who are fit, even by the most liberal interpretation of the regulations, to enlist is indefinite. One-third of the total number graduated would be a most liberal estimate, and this in round numbers would be 1500 men.

An occupation akin to nursing, but one requiring far less intelligence and of much lower grade, is the calling of the ward attendant in civilian hospitals. He is usually termed a ward orderly.

To arrive at the idea of his position in the hospital world a letter was sent to the Superintendents of most of the larger hospitals in the United States, requesting that they give the number

of their orderlies and state their personal ideas on the subject of the ward orderly system. A great diversity of opinion was shown in their replies. On the one hand the ward orderly was considered to be the equal of the female nurse, receiving the same training, both practical and theoretical, and performing the same duties. On the other hand, quoting literally from a letter of the superintendent of the Johns Hopkins Hospital, Baltimore, "Our orderlies here are not nurses, but servants to the nurses." Most hospital superintendents state that they have great difficulty in retaining their men.

In one hospital the superintendent says: "We employ fourteen orderlies, we sometimes have almost that number to employ each month." The German Hospital in the City of New York employs men who have been in the sanitary service of the German army or navy. Many of these orderlies have been employed by this hospital from six to twenty years. About one-twelfth of the hospitals give a course of instruction which educates their ward orderlies, so that to all intents they are trained nurses. These hospitals employ their orderlies in actual nursing.

The same number of hospitals employ male nurses to assist the female nurses in the heavy work of the wards, and an inferior class of labor which they call "cleaners" for the dirty work. Another superintendent states that his hospital employs male nurses for special duty, and these nurses are orderlies who have served three years in the wards. The rest of the hospitals communicated with say that they take their orderlies at first as raw, inexperienced men and give them a "certain amount of instruction in their routine duties"; which indefinite statement might apply equally to the hostlers in a livery stable.

In the vast majority of cases the ward orderly is simply a domestic servant, whose hours of duty are seldom less than twelve out of the twenty-four. His wages are from \$18 to \$30 a month and his keep; his tasks the most menial and loathsome. A very large number of these men are expatriates of the hospitals in which they serve, who at the time of their discharge from treatment accept the low wages and the position of a hospital drudge for the living which their physical strength would not allow them to obtain by hard manual labor. Frequently they are men of middle or even advanced age. Their most shining virtues are good nature and warm-hearted sympathy for the sick and injured they serve. As a class they are addicted to alcohol, uncleanly and petty grafters. The subject is not one which adapts itself to

exacts statistical methods; the most careful examination by correspondence, interviews and research into hospital literature leads to the conclusion that there cannot be in the whole country more than 2500 hospital men of this class who are fit, either by training or by their physical condition, to be military nurses in the armies of the United States. The ward attendants, in contra distinction to the male nurse, working in hospitals for the insane performs functions which are those of a jailer rather than those of a nurse. Their knowledge of nursing is so slight that it practically amounts to nothing, and they are also overworked and underpaid. Whether justified or not, their reputation for brutality and hardness is wide-spread; they would be of no value as military nurses. The number of graduate trained nurses now enlisted in the Hospital Corps of the Regular Army appears to be unknown, as there are no data on this point at the office of the Surgeon-General.

Only wide experience with the Hospital Corps of the U. S. Army could possibly estimate the number of enlisted men in that service who have been educated in army hospitals to be "trained" nurses, as that term is commonly accepted. No male nurses can be produced in the service of the organized militia. The annual or biennial encampments of one or two weeks' duration are the only occasions during which an opportunity to exercise men in the practical care of the sick occurs. Those states which have pension laws, or acts by which the militia soldier is compensated for the time which he loses from his business after the conclusion of the encampment by reason of illness or injury incurred in the line of duty, find that the amateur nursing of the Militia Hospital Corps is decidedly expensive. The soldier finds it decidedly uncomfortable. A wise policy on the part of these states has been to transfer their bed cases to the nearest properly equipped civilian hospital or to their own homes.

The lack of male nurses in the United States is due to the lack of a demand for them. In hospitals there is a small need for them now, and in the future this need will decrease.

The practice of most institutions of the present day is to do all nursing by female nurses, with the exception of the cases the character of which is such that women cannot be employed. In private practice the same class of case must be cared for by the male nurse. In addition to cases of this character a number of male nurses are employed as a combination of courier, valet and

nurse by infirm old men, and a few by the guardians of the wealthy insane.

The exaltation of the practice of nursing into a profession is a development of recent years; at the present time the laws of fifteen states compel all persons who would term themselves trained nurses to present evidence of at least two years' service in the wards of a general hospital and to pass an examination in the theory of nursing and the principles of certain branches of medicine.

The educational attainments of the professional nurse are thus becoming known quantities, and the term trained nurse is acquiring a definite meaning; no improvised nurses can come within this meaning. It is certain that the professional nurse is indispensable, be the practice civil or military, for the old-fashioned, uneducated rule-of-thumb nurse is as obsolete in modern medicine and surgery as the cross-bow in modern war.

One of the results of the wide-spread distribution of hospitals throughout the country has been to educate all classes of the population to discriminate as to good nursing; another result has been to familiarize the class from which we draw our enlisted men with certain luxuries of care when they are sick. Should the military nursing in the next war be inefficient the public will be quick to recognize the fact, and the discontent that is certain to arise from such a cause will have a tremendous political influence. The *raison d'être* of the hospital corps is to care for the sick and wounded and its chief duty is to do the necessary nursing. Logically, the backbone of the enlisted organization is the military nurse, and if the military nurse cannot be secured the organization, though admirable as a theoretical essay, becomes from a practical standpoint a delusion of grandeur. Apparently the material for this backbone does not exist.

Of the small number of trained men who are now to be found in this country a certain portion will be needed to recruit the hospital service of the navy. The Red Cross will be a competitor of the army and navy rather than a source of supply in the matter of trained men. It is probable also that it will be a dangerous competitor, having superior inducements to offer in the way of pay, food, shelter and the absence of rigid military discipline.

Writing of the enrollment of women nurses, physicians and pharmacists by the Red Cross for service in war, Major Charles

Lynch, M. C., U. S. A.,* says: "The supply of male nurses, of whom many are likely to be needed, offers a much more serious problem, and one to which no very satisfactory solution can be given."

Solutions of this serious problem by the substitution of physicians, medical students and pharmacists for nurses will be unavailing. It is extremely doubtful if the number of medical practitioners in this country is sufficiently large to care for the military service and the civilian population of our 80,000,000 people. Their services will be too valuable in their own sphere to allow of their being wasted in the subordinate position of nurses. Medical students have only received a partial medical education; they have not had the prolonged contact with the sick, which is the all-important element in the training of a nurse.

Pharmacists are educated in one of the allied branches of medicine, and they, too, lack all experience in the care of the sick and wounded. This leaves only the female nurse. It is obviously impossible to use women in the service of the front, and there seem to be well-grounded objections to them even upon the lines of communication. In short, "The consensus of opinion among army physicians is that their proper place is in fixed hospitals at the rear."†

If this be the case, the absolute necessity of the male professional nurse is apparent; without him nothing can be done. A similar situation in respect to supplies was once summarized by a Japanese cook when he said, "If no can have, how can do?"

The problem of the military nurse is indeed such a serious one that it must be solved, unless we are willing to accept a failure of our medical conduct in war. This problem resolves itself into two factors—a demand in the military service created by war, and a supply which can only be produced by the institutions of peace.

The solution the future holds is to be based upon the correlation of these two facts, but the preliminary to such a relation must be a much closer contact between the medical department of our military service and the general medical profession and the hospitals of the country.

With the clinical cases in civil hospitals available for the training of military nurses something may be done.

**The American National Red Cross in War. The Military Surgeon*, Vol. XXI, No. 5, p. 410.

†*Russo-Japanese War, Reports of Military Observers*. Col. John Van R. Hoff, M. C., U. S. A., p. 129.

CAVALRY EXPANSION.

BY CAPTAIN CHARLES D. RHODES, SIXTH CAVALRY.



THE recent war in Manchuria has by no means demonstrated what good cavalry can do, but it has shown unmistakably that not only has cavalry lost none of its tactical value, but that if some of its former functions have been curtailed and limited, others have assumed an importance which could hardly have been anticipated.

The great extent of modern battle lines, the magnitude of turning movements made necessary by the difficulty of frontal attacks, and the long range fire of both artillery and small-arms which keeps reconnoissance at arm's length—all tend to tie the hands of the army commander unless he has good cavalry and plenty of it.

We see none of the great European powers reducing its cavalry. There has been some talk in France, of increasing the field artillery at the expense of the cavalry, but nothing has come of it. On the contrary, everything points to the need of increased mobility, and the need of keeping mounted troops at war strength. They are the first to be needed at the outbreak of war, and the slowest to be organized, equipped and trained.

* * * * *

In our country, no careful student of its military and political history can doubt that sooner or later the United States will have to fight a foreign war, which may shake the great republic to its very foundations. It may happily be postponed for a score of years; or it may come at any time—for the history of all wars is that they come unexpectedly and from small beginnings. But come it surely will, if for no other reason than the increasing complexity of our commercial and economic policy, which need not here be discussed.

In any event, it seems very probable indeed, that the United States will periodically be called upon to organize and equip minor expeditionary forces for service in the Western Hemisphere, due to our apparent diplomatic policy of maintaining the

Monroe Doctrine on the one hand, and on the other of ourselves assuming police powers towards our neighbors if we would forbid the exercise of those powers by European nations.

REGULAR CAVALRY.

For ordinary purposes we have sufficient available regular cavalry to supply the quota required in an expeditionary force. But experience has shown that expeditions involving the occupation of a rough and partly settled country, lending itself to partisan warfare, should not only have its ordinary proportion, but a preponderance of mounted troops.

The ravages of *surra* and glanders in the Philippines, and the cost of bringing remounts from the United States, has reduced the cavalry regiments allotted to the islands to four. But in the guerilla period of the Philippine Insurrection, the mounted troops—regular cavalry and hastily organized detachments of mounted infantry, were almost the only troops which accomplished anything—until concentration camps were established. Foot troops, except in exceptional localities, were almost useless.

In the Santiago expedition, the mounted quota was confined to a single squadron of cavalry. Of this mistaken lack of cavalry, the recently published report of the late Colonel Arthur L. Wagner, says:

But though the cavalry division was able to do excellent service as infantry, it is to be regretted that there was not in the army of invasion a greater number of mounted troops. * * * I have no hesitancy in saying from my own knowledge, that a force of cavalry used on reconnoitering duty, would have been of inestimable value; and I am satisfied that if a single mounted troop had been with Lawton on the morning of the 23d of June, the campaign would have opened with the capture of a Spanish battalion.

Similarly in the China Relief Expedition. A regiment of cavalry was sent from the United States on three transports by three different routes. The time *en route* was about forty days, and the regiment unfortunately arrived too late to go forward with the first advance, except one troop made up of the best conditioned horses.

Looking at this expedition in retrospect, there is no doubt that a cavalry brigade despatched from Manila to Taku could have maneuvered into Peking within a few days after landing, and have relieved the Legations without having to fight a serious battle. General James H. Wilson, U. S. A., than whom there

is probably no greater cavalry commander now living, has said that a single regiment of regular cavalry might have moved with impunity between Tientsin and Peking, relying on celerity of movement, the abundance of green forage, and the suitability of the flat, unfenced country, for cavalry operations. Should another China Expedition be necessary, a preponderance of cavalry for the first advance would not come amiss.

Cavalry can never replace infantry. The latter is our principal arm always, and for our serious operations we need plenty of it. But the previous remarks are simply intended to invite attention to the fact that no expedition involving possible guerilla warfare, whether in China, the Philippines, or Central or South America, is at its best without its full quota or even a preponderance of cavalry.

The threadbare aphorism which had its origin at the beginning of the Civil War—"The character of the country is unsuited for cavalry operations," is now inapplicable to mountainous, wooded or tropical countries. Cavalry is now in demand wherever celerity of movement is requisite to success. The whole point is not necessarily to fight cavalry mounted, but to concentrate a superior force at a strategic point in the shortest possible time; saving the infantry, always our main dependence when it comes to serious contact, from vexatious, fatiguing and oftentimes demoralizing operations.

It is perhaps not too much to say that the first line of an expedition involving guerilla warfare should be composed wholly of cavalry and either horse- or mountain-artillery; to be followed and supported by the three arms combined.

RESERVE CAVALRY.

In any foreign war of magnitude, it is safe to assume that the United States will mobilize not less than from half a million to a million men.

Under the Act of Congress approved May 27, 1908, the organized militia becomes by law the first reserve of the Regular Army, in advance of any purely volunteer force; and will augment the regular establishment by (say) 90,000 infantry and 3800 cavalry—good, poor and indifferent. Supposing that the regular establishment is raised to war strength, and that the first call for troops contemplates the mobilization of ten army corps and two cavalry divisions, the infantry would still lack

68 per cent. and the cavalry 62 per cent. of its quota, to be made up by volunteers.

But experience has shown that while so-called volunteer cavalry may be more or less expeditiously organized and mustered in at the outbreak of war, it is of little or no account as cavalry for many months.

In the War of the Rebellion, the cavalry of the Army of the Potomac was inefficient as a cavalry force for the first two years of the war; while the volunteer infantry, under McClellan's genius for organization and training, was a fighting machine in one-third of that time. In the Spanish War the volunteer cavalry amounted to 289 officers and 7003 men by the end of August, 1898; but little of it was dependable as cavalry before muster-out. The Boer War produced a yeomanry cavalry which was extravagant and inefficient during a considerable period of the war; the British statistics as to loss of horseflesh alone, are almost incredible. Poor cavalry is almost as bad as having no cavalry at all, and we have an exemplification of this in the mounted work of the Russian Cossacks during the recent war in Manchuria.

Now there can be little doubt that if there ever was a time when our country was filled with natural horsemen—a statement which though often made is open to grave doubt, that period is past. The constant attraction of farmer lads to city life, and the replacement of the horse as a means of locomotion by the bicycle, motor car and interurban lines of traffic, has discouraged horsemanship. The National Rifle Association of America is making stupendous efforts to reawaken a national interest in rifle shooting, and recreate a people of marksmen. But there is little or no tendency towards a revival of practical horsemanship, except among the limited leisure classes and professional horsemen. Nor would it be easy at the present time to secure within a reasonable period suitable mounts for a single cavalry division, conforming even approximately to government specifications.

All this means that it will now take longer than ever to put into the field—organized, trained and equipped, a cavalry force commensurate with our infantry quota of regulars, organized militia and volunteers. Officers inexperienced in the organization and maintenance of mounted troops are only too prone to believe that, given an adequate number of athletic young Americans and a corresponding number of horses, the simple addition

of the one to the other spells cavalry. It has always meant humiliating short-comings in the work of the mounted arm, fatiguing service and unnecessary losses to the infantry, plans of battle founded on such faulty information as lead to serious disaster, and an extravagance in horseflesh which would alone have warranted quadrupling expenditures in peace time, to make ready for war time expansion.

What is the remedy?

1. The organization of the cavalry should be changed to regiments of nine troops, not only making the regiment and brigade more flexible as a tactical unit, but leading to economy in the use of our available cavalry. In other words, the cavalry will go twenty-five per cent. farther with better tactical results than under our present organization.

2. The cavalry—regulars and militia, should be kept at war strength. It will be the first force needed when war is declared, whether the latter be with our near neighbors north or south, a minor expedition in our hemisphere, or a foreign war in the broadest sense of the term. Except the field artillery, too, it will be the arm most slow to organize, equip and train.

3. An enlistment period, already urged by the General Staff, whereby trained soldiers will be held to service in a regular reserve, after service with the colors, permitting regular organizations, if not already on a war footing, to pass to such without loss of time. This scheme, recently presented to Congress, has been unfortunately misunderstood by the National Guard as an attempt to usurp their functions. It should receive the hearty support of the organized militia, and the system extended to their own organizations.

4. Additional encouragement should by all means be given by both state and federal authorities to the organization and maintenance of cavalry of the organized militia or National Guard.

The most recent available data gives the strength of this cavalry as 3807—a heterogeneous force, scattered through twenty-four states and territories. In the year 1907, the cavalry in sixteen states was reported by army inspectors as not fully armed and equipped; and in nineteen states, as not yet conforming to the organization prescribed for cavalry of the regular army. This is not a very flattering showing, either in point of numbers or equipment. Its tactical efficiency varies of course, with its personnel.

The chief obstacle in the organization and maintenance of state cavalry, is undoubtedly the expense; the service itself is usually very attractive to recruits; and in intelligence, its enlisted personnel is usually far above the average.

Of the expense, the first cost of horses, their subsistence, occasional railway journeys to places of encampment, and the building of suitable armories or riding halls, are the principal items. Unless the organization is composed of young men of independent means, the troop or squadron commander of a mounted organization in the organized militia has untold difficulties in making both ends meet.

A National Guard officer writes from Wisconsin:

In equipping a National Guard troop, the initial expense of providing fifty mounts would be about \$7,500. This amount would have to be raised by private subscription, as there is no money set aside by the State in amount large enough for this purpose. Then the care and feed of horses, shoeing, rent of quarters and stable, wages of men who care for the horses, and other items, will figure to at least \$7,500 annually.

The State of Wisconsin allows its one troop \$6,100 annually; the officers and men of the troop turn into its treasury all of their earnings at the annual camp of instruction—about \$1,000; and in addition to this, each member of the troop pays dues amounting to \$12 a year. All of this money is used in payment of items mentioned above, and it requires close figuring to make both ends meet.

In spite of these conditions, we experience no difficulty in keeping recruited to the maximum (66) at all times.

In Pennsylvania, lack of armories for mounted work, is criticized as follows;

I would say that the difficulties in the way of organization and maintenance of National Guard cavalry arises mainly from the want of suitable armories. By suitable armories I mean such as afford riding-halls, where the elements of horsemanship can be taught to the men, at least by squads.

In a riding-hall of only modest dimensions, the same horses could be used for several sets of men in the evening's drill, without unduly working the horses, as all the instruction would be at slow gaits. This sort of work must result in the more uniform results than can be expected from drills in the open, participated in by the entire troop, or most of it.

I speak from the standpoint of the experience of my own command. We have not yet been reached in our turn by the Armory Board, and it may be several years before the State will erect an armory for us. During the twenty years of our existence, we have found that the actual instruction was not gained by the outdoor drills and parades, but by the theoretical instruction in the armory, in which we used a model horse in an upstairs room, the command being entirely destitute of riding-hall facilities. I do not mean to speak slightly of the outdoor drills and parades. I value them, however, mainly in their effect upon the standing of a command in the public estimation, and not for any

real benefit the men derive from such exercise, as compared with the elementary squad drills, before mentioned.

My idea of the way for the Federal and State Governments to assist and encourage an increase in the cavalry organization of the National Guard, is for the States to provide the armories, with ample room for the instruction of squads in mounted work, including proper saddling and bridling, adjustment of packs, use of arms on horseback, etc.; and for the United States Government to allow horse hire for a reasonable number of armory drills during the year.

Most of the cavalry commands of the organized militia are such in spite of their conditions, and because of a fixed determination to be cavalry. With this spirit to build upon, I think that a very little encouragement will produce a force that could be made ready for the field in a very short time.

An officer of the New York National Guard, of wide experience as a militia cavalry commander, writes:

The main difficulty in maintaining cavalry commands in the National Guard is the cost, which falls on the organization itself, of proper mounts. For, aside from that, I can see no reason why there should be any more or so much trouble in maintaining or rather in recruiting for the cavalry as for the infantry.

So far as my own particular command is concerned, we are virtually with full ranks at all times, and we have no difficulty whatsoever in recruiting; but the expense to each individual member is naturally much more than in the infantry, but on the other hand, the troopers have much more to interest them.

If the State should supply a certain number of mounts, say at least equal to one-fourth the strength of a command, such horses could be kept in the squadron armory, used for all drills, parades, field service, etc., and whenever necessary. And in addition to that, as I did for two winters, the cavalry commander can give the different staff officers of the regiments stationed in New York an hour or two every week, for the purpose of instruction in riding. In this way the cavalry would at all times have enough mounts to supply at least one-quarter of its men, and the State would benefit by having horses at all times available for its use.

With us, we have about 250 men, four troops, and only have stable room in our armory for about 116 horses, all of which are owned by the individual members or the squadron. And, in addition we have a place at Van Cortlandt Park, ten miles from the armory, where we have stables which we keep up at our own expense, capable of keeping about eighty additional horses.

So far as equipment is concerned, that is supplied from the U. S. Government, and is sufficient in every way.

There is no trouble, so far as I can see, provided a commanding officer has the welfare of his command continually at heart, in keeping up an efficient cavalry command. The only obstacle is the expense to the State, but the cavalry has proved that it is of more use in case of street riots, than any other branch, almost. If the Federal and State Governments could arrive at some conclusion whereby mounts could be furnished, the one great obstacle would be removed.

I know that the work, varied as it is, is much more interesting to the average man of to-day than a large part of the infantry work; and as I have before said, I can see no reason why it should not be

kept up without any trouble, so far as each individual organization is concerned, if the expense of proper mounts can be eliminated or largely reduced.

An officer writes me from the South, as follows. His squadron, organized in a horse-producing state, was reduced by the state authorities to a single troop, because the other troops could not be kept up to the required standard:

Increasing the infantry arm would be a simple matter as compared with perfecting a cavalry organization of sufficient strength for such an army. An efficient cavalryman must possess all the knowledge of an infantryman, and a good knowledge of horsemanship besides. *A horse-man cannot be made quickly.* * * *

There is but one thing necessary on the part of the General Government to enable the militia cavalry to become what it should; and that is the enactment by Congress of a law providing an allowance of feed and forage for the number of horses necessary for instruction in each organization. If this is done, the enlisted men would readily purchase their own horses, feeding them at Government expense, and holding them subject to militia duty at all times.

There is apparently no way under the Constitution and existing law, by which the United States may prescribe to the several states what proportion of its organized militia shall constitute the three arms; nor what portion of the annual appropriation by Congress shall be expended upon particular arms. All such matters are left to the states.

This question may perhaps become more embarrassing, should, as has been proposed, the country be divided into military districts, each with its army corps of regulars and militia. Unless the several states *voluntarily* agree on their quota of the three arms, to the local army corps, the latter may not contain its due proportion. This question has already become a pertinent one in local coast defense.

But such matters could doubtless be regulated by Congress in specifying in what proportions or in what manner the annual appropriation for the militia should be expended. In this way, certain horse-producing states might be invited to furnish a preponderance of mounted troops, and the allotment of the appropriation to such troops, be based on double or treble the per capita amount allotted to foot troops—at least until the first cost of mounts was defrayed. If the state of Texas, say, is willing to organize and maintain 3000 cavalry instead of the same number of infantry, its Congressional allotment should be multiplied by some equitable factor.

If, too, forage were allowed by the Government, to all troopers who would furnish for all drills and field service, a satisfactory mount, there would certainly result a very stimulating movement in recruiting for the National Guard cavalry. The Swiss militia cavalryman is permitted to use his public mount in his ordinary duties, and gradually purchase it, under regulations framed by the Swiss Government.

In this way, and probably only in this way, will the Federal Government—which means the Nation—do away with a one-sided reserve for the regular establishment, now composed almost entirely of the arm most easily organized, armed, equipped and trained; and will have taken an additional step towards the mobilization at the outbreak of war—not of a mass of unrelated, separate entities—but of that which should be the net result of all military preparation—an *organized army*.



SOLDIERS' CLOTHING: ITS ILLEGAL PURCHASE AND HOW TO PUNISH THE OFFENDING PURCHASER.*

BY CAPTAIN HOWARD R. HICKOK, FIFTEENTH CAVALRY.

THE GOVERNMENT'S TITLE IN CLOTHING ISSUED TO SOLDIERS.



IN view of the recently adversely decided case of *United States versus Michael* (153 Federal Reporter 609), in which the opinion of the court hinged on the question of the ownership of clothing issued to soldiers, and taking as a basis the concrete case assumed above, the following argument may be advanced:

CLOTHING NOT PERSONAL PROPERTY OF SOLDIERS.

Under Article of War 17, the soldier is prohibited from selling "his horse, arms, clothing or accouterments," under penalty of punishment. Selling his clothing is thus an offense against the United States, for which punishment may be inflicted. However, if "his horse, arms, clothing or accouterments" be personal property unqualifiedly, he may dispose of them without committing an offense, as may any civilian of his personal property. This leads to the necessity of determining the meaning of "his" clothing.

Upon his enlisting, the soldier, on an oath, agrees "to accept from the United States such bounty, pay, rations and clothing as are or may be established by law." Enlistment is, properly speaking, a contract between the Government and the party entering the service. (*U. S. vs. Michael*, 153 Fed. Rep. 609.) This provision entitles the soldier to reasonably expect that the Government will furnish him with bounty, pay, rations and clothing. On the other hand, the Government has the right to prescribe what these shall be. "The President may prescribe the uniform of the army, and the quantity and kind of clothing which shall be issued annually to the troops of the United

*Written for the Department of Law, Army Staff College. Concluded from September JOURNAL.

States." (Sec. 1296, R.S.) And it is the custom of the President to do this from time to time. Any clothing issued to the soldier in excess of the allowance made by the President is charged against the soldier's pay. (Sec. 1302, R.S.) Upon his discharge, the money value of any undrawn clothing still to his credit is paid to him. (Sec. 1308, R.S.) Another way to state the same proposition is this: The Government is willing to spend so much per year for wear and tear on the soldier's clothing and uniform. If he be economical and does not use the full amount of this allowance, the Government gives him the benefit of his economy and that much goes to his credit, to be paid to him on his discharge. If he be extravagant or careless and use more clothing than the amount the Government will stand for, the excess he must make up out of his pay. The object of this system is to provide a uniform and efficient method of clothing soldiers, insuring economy to the Government and stimulating the soldier to taking proper care of his uniform.

If the clothing issued to a soldier for his use as a soldier becomes his personal property, there must be a law somewhere to that effect. If the Government intend that title shall pass to the soldier upon issue to him of the clothing, that fact must be set forth in some law. The only law which allows the issue to him of clothing is the one which gives the President authority to prescribe "the quantity and kind of clothing which shall be issued" to him. (Sec. 1296, R.S.) Much must be determined by the meaning of the word "issued." As applied in the military service, "to issue" means "to send forth or give out officially, to deliver by authority; as to issue money, ammunition or commands." (Standard Dictionary, p. 954.) In the military service, supplies of all kinds are habitually "issued." Rations are "issued" by the commissary to the company commander and by the company commander to the cooks, who cook them for the company; but in no case do they become the personal property of those through whose hands they pass. The quartermaster "issues" forage, horseshoes and other supplies to the troop commanders, and they in turn "issue" them to stable sergeants and blacksmiths; but title still vests in the Government. The company commander "issues" to his soldiers, arms, ammunition and accouterments, but the company commander is still accountable to the Government for them. They in no case become the personal property of the soldier to whom "issued." Again, the company commander at some time and the quartermaster at others

"issues" clothing to the soldiers. This clothing the soldier may neither spoil, lose nor sell. This control is retained by the Government because the clothing is a necessary instrument to the Government in the care and use of its army. If it become his personal property by reason of its having been issued to him, none of these prohibitions could be effective. The Government, upon issuing clothing to the soldier, therefore, still retains ownership.

Some articles of clothing, most all, in fact, when once issued to a soldier, he is allowed to retain. This is from various reasons of policy. To hand the ordinary articles of clothing down from man to man is a thing to which most men, from an ethical standpoint, will very naturally object. Also, by the time a soldier has worn his uniform the greater part of his term of service, the uniform will not ordinarily have much slightly wearing qualities left in it, and its very appearance will be such as not to instil the pride which a soldier is expected to keep in his uniform. Many men take such a pride in their service, even after they are entirely severed therefrom, that they wish to keep their uniform as sentimental mementoes. This sentiment the Government is interested in preserving. These are only some of the reasons why the uniform is not ordinarily taken away from the soldier when once issued to him.

Other articles of clothing, such as blanket-lined overcoats, are issued to the soldier for temporary use only. Articles thus issued may be recalled at any time, whether or not the occasion or necessity for their issue and use is past. If the blanket-lined overcoat issued to a soldier for his temporary use may be taken from him by the Government at any time, his military or uniform overcoat, which has been issued to him for his ordinary use, may also be taken from him; and the same reasoning applies to all clothing issued to a soldier. The Government could take none of these articles back after they have once been issued to the soldier if, upon their being issued to him, they became his personal property.

If, while in his possession, the soldier should sell "his" blanket-lined overcoat, that is, the blanket-lined overcoat issued to him for his use in the military service, he would be liable to punishment under the Seventeenth Article of War, before quoted, just as much as he would be were he to sell "his" military overcoat, although this overcoat once issued to him, the soldier is ordinarily allowed to retain. Or, again, a horse is assigned to

a soldier for his use as such. He uses this horse for his drills and other duties. He is responsible for its care and training. The horse is kept at the stable with other Government horses, and may at any time be assigned to the use of some other soldier, or otherwise disposed of as the proper officers see fit. To the soldier to whom issued, this is "his" horse, notwithstanding the fact that the use he makes of the horse may be temporary, intermittent and liable to be terminated at any moment, and that the soldier may not have signed a receipt for the horse, nor given other written evidence that the horse is "his." Should he sell "his" horse, he would be liable to punishment under the article quoted. So, also, as to arms and accouterments. These are necessary to the soldier's profession. When issued to him for his use as a soldier, they are "his." They may at any time be taken from him. When the soldier's service terminates, "his" arms and accouterments remain with the Government. Should he sell "his" arms and accouterments, he may suffer penalty. It is, therefore, clear that the qualifying pronominal adjective "his" is intended to indicate the application which is made of the property in question, and not to indicate personal ownership.

Under Sections 1242 and 3748, Revised Statutes, the clothing, arms, military outfits and accouterments, furnished to any soldier, shall not be sold, bartered, exchanged, pledged, loaned or given away, and no person who has acquired them by any such means shall have any right, title or interest in them, and they may be seized by United States civil or military officers wherever found. The object of these laws is to break up the pernicious practice of soldiers disposing of such Government property as they have easiest access to. As stated by the court in *United States versus Michael*, "there is nothing in the language of the section (Sec. 3748, R.S.) defining clothing, furnished to a soldier, to be public property." Nor does the section define arms, accouterments or military outfits, furnished to soldiers, to be public property. As above shown, these articles already are Government or public property, and remain so after their issue to soldiers. Therefore, no reason exists why these sections, nor any other, should contain the specific statement to the effect that the clothing, arms, military outfits, or accouterments, issued to a soldier, are public property.

The United States District Court in the case of *United States versus Hart* (N.D. III, E. D. No. 3676, 146 Fed. Rep. 202), remarked as follows:

"Clothing is issued to soldiers by the United States for use by them in the capacity of soldiers. The Government determines the character, quality and quantity of the clothing to be issued to the soldiers, and when the clothing is issued, although it is charged against the soldiers on their clothing account, they receive but a qualified interest therein.

"These sections (A. W. 17 and Sec. 3748, R. S.) of the Revised Statutes indicate that the title to the clothing issued to the soldiers remains in the United States; therefore I hold that in this case the articles of clothing which were issued to the soldiers at Fort Sheridan while they were employed in the military service of the United States were public property under Section 5438."

In the case of the United States versus Koplik (156 Fed. Rep. 919), the court remarked:

"And under all of these circumstances you can see what the situation of the soldier is, when he attempts to pledge his clothing. And then, the statute forbids the pledging by a soldier, or sailor in the case of the navy, of the arms, the equipment, ammunition, the clothing, and any other public property which he does not have the lawful right to pledge or sell.

"You have heard read into the case a statute giving the government officers the right to seize such public property. I charge you that the section refers as well to clothing which the soldier has paid for as to powder, cartridges, rifle, and these other articles which have only been handed to him for use * * *"

In considering the question of title to clothing issued to soldiers, the opinions of the executive departments are deserving of consideration and are entitled to some weight. At one time such clothing was regarded as Government property unqualifiedly. Then came the ruling of the Judge Advocate General of the United States Army, as follows:

"Clothing issued and charged to a soldier is not now (as it was formerly) regarded as remaining the property of the United States. It is considered as becoming, upon issue, the property of the soldier, although his use of it is, for purpose of discipline, qualified and restricted. Thus he commits a military offense by disposing of it as specified in this article (17), though the United States suffers no loss." (*Digest Opin.*, J. A. G., 1901, Par. 11, April, 1893.)

Subsequent to this ruling, however, there has been a tendency to return to the original idea. Thus, in 1898, it was held:

"A soldier's title to clothing issued to him is a qualified one, requiring that he use it in the service while it is serviceable and he is yet a soldier. But on his discharge his title to such clothing becomes absolute and he may then sell, etc., the same to a civilian and give a valid title to it. (*Digest Opin.*, J. A. G., 1901, Par. 2276.)

Under date of December 1, 1905, the Judge Advocate General of the Army gave the following opinion to the Military Secretary of the Army:

"It is true that upon the discharge of a soldier he may carry away with him the clothing and blankets received while in the service, the title then vesting in him without question. So, also, on his death the clothing becomes part of his estate. Until such discharge or death, however, the soldier has but a qualified title to his clothing and blankets and sufficient title remains in the United States to warrant a prosecution under Section 5438 of the Revised Statutes, this statute being broad enough to cover the case, whether blankets be considered "clothing" or public property."

The court, in the case of United States versus Michael, quoted the above opinion of the Judge Advocate General of April, 1893, and referred to one of similar import of the same authority of June, 1897, as supporting the decision of the court in the above case, to wit: "* * * an overcoat, issued to a soldier as part of his clothing allowance, ceases to be public property after its issuance, and becomes the property of the soldier, although for disciplinary purposes he may not be invested with the absolute *jus disponendi* until his discharge from the service."

The Judge Advocate General has disclaimed and denied that his views are in accord with those of the court, in terms as follows:

"(16107) War Department. Office of the Judge Advocate General. Washington, D. C., December 21, 1907. Respectfully returned to the adjutant-general * * *. The opinion in the Michael case (U. S. vs. Michael, 153 Fed. Rep. 609) contains a statement to the effect that the views of this office are in accord with the opinion of the learned judge in the case. In this the judge is mistaken. While such opinion was held some time since by this office its present views are entirely to the contrary."

SALE AND PURCHASE ILLEGAL.

Sections 1242 and 3748, Revised Statutes, prohibit the sale of clothing furnished by the United States to soldiers, and, as a penalty, subjects the articles so unlawfully sold to seizure. Where a sale is illegal, the purchase vests no title and subjects the article, as in this case, to seizure, though by these laws no penalty is provided for the soldier who thus unlawfully sells the clothing furnished to him. Article of War 17, however, provides punishment for the soldier by prescribing "any soldier who sells * * * his * * * clothing * * * shall be punished as a court-martial may direct." It is, therefore, clear that the soldier has no lawful right to sell or pledge his clothing, and, as a military overcoat issued by the Government to the soldier C—— D—— is clothing, his act was unlawful, and for that he

may be punished. Since the overcoat is Government property and the sale by the soldier is unlawful, the purchase of said overcoat by A—— B—— is brought within the purview of Section 5438, Revised Statutes, which provides on this point (parts not bearing on this case omitted) : “and every person who knowingly purchases * * * from any soldier * * * any * * * clothes * * * such soldier * * * NOT HAVING THE LAWFUL RIGHT TO PLEDGE OR SELL THE SAME, etc.” Such purchase is, therefore, unlawful, and renders said A—— B—— liable to punishment. This fact was lost sight of by the court in the Michael case. Every law must be considered in the light of other laws bearing on the same subject. The legality of purchase is dependent upon the right of the vendor to sell. The lack of lawful right to sell here makes the purchase not only illegal and of no effect, but also renders the purchaser a law-breaker and liable to the penalty prescribed.

Said the United States Circuit Court in the case of *United States versus Smith* (156 Fed. Rep. 859) :

“You will observe that the provisions of this statute (Sec. 5438 R. S.) apply to persons who knowingly purchase or receive in pledge any of the kinds of property described here from a soldier, officer, or sailor in the service of the United States. The elements of the crime are guilty knowledge and actual purchase of and receiving in pledge the kind of property named and receiving it from a person in the military service of the United States. All those things are necessary to be proved in order to make it a criminal case. The guilty knowledge that is a necessary element of the crime is not knowledge that the act is unlawful. The law does not permit ignorance of the provisions of the law to avail as a defense in any case, but the knowledge must be knowledge of the facts, knowledge that the property offered for sale or pledge is the military stores of the United States—that is, arms, clothing, or property that is provided by the United States for use in the military service, and knowledge that the person offering to sell or pledge it is a person in the military service at the time.”

CONCLUSIONS.

It therefore appears that :

Clothing issued to soldiers does not become their personal property, but title remains in the Government.

The Government retains the right to proscribe unlawful means and manners by which soldiers may not dispose of clothing issued to them, and the penalties for those who purchase same.

A military overcoat is clothing, within the meaning of the law.

The sale to A—— B——, a civilian, by the soldier C—— D——, in the service of the United States, of the military overcoat issued to him for his use as a soldier, is unlawful, and for such act said C—— D—— is liable to punishment.

The purchase by the civilian A—— B—— from the soldier C—— D—— of the military overcoat issued to the said C—— D——, for his use as a soldier, is unlawful, and for such purchase the said A—— B—— should have adjudged the penalties provided by Section 5438, Revised Statutes.

DECIDED CASES.

The following is a list of decided cases in which the defendants, having been charged with the purchase, contrary to law, of clothing issued to soldiers, were found guilty and sentence passed:

- U. S. vs. A. H. Rehfield, Jan., 1903, U. S. Dist. Ct., N. D. Cal.
- U. S. vs. Charles W. Darrah, U. S. Dist. Ct., E. D. Kentucky.
- U. S. vs. Michael Walker, U. S. Dist. Ct., S. D. of New York.
- U. S. vs. Philip Luidheimer, U. S. Dist. Ct., S. D. of New York.
- U. S. vs. Smith W. Woodward, U. S. Dist. Ct., Dist. of Wyoming.
- U. S. vs. J. T. Clay, U. S. Dist. Ct., S. D. Texas.
- U. S. vs. Samuel Seigler, U. S. Dist. Ct., N. D. California.
- U. S. vs. J. M. Flynn, U. S. Dist. Ct., W. D. Washington.
- U. S. vs. John R. Reid, U. S. Circ. Ct., New York.
- U. S. vs. Joseph Eplan, U. S. Dist. Ct., N. D. Georgia, 1908.
- U. S. vs. Edward Hart, 146 Fed. Rep. 202.
- U. S. vs. Charles M. Koplik, 155 Fed. Rep. 919.
- U. S. vs. O. H. Smith, 156 Fed. Rep. 859.

Sources of information in the preparation of this paper:

- Data from the office of the Judge Advocate General of the Army.
- Letters of Judge Advocate, Department of the Columbia.
- "Stolen or Embezzled Government Military Property," by Maj. D. H. Boughton, Eleventh Cavalry.
- Files of the Department of Law, Army Staff College.
- United States Statutes.
- Decided Cases of the United States Courts.

APPENDIX "A."

UNITED STATES OF AMERICA, }
 Eastern District of Kansas, } s.s. Affidavit for Search Warrant.

Be it remembered, that on this day, before me, the undersigned, a United States Commissioner for the Eastern District of Kansas, came * * * P—— Q—— R——, who, being by me duly sworn, deposes and says that he has good reason to believe, and does verily believe, that on the 1st day of December, A. D. 1907, one A—— B——, of Leavenworth, County of Leavenworth, State of Kansas, did purchase from C—— D——, a soldier in the military service of the United States, a certain article of clothing, to wit, one military overcoat, said overcoat being then and there the property of the United States of America, and said C—— D—— having then and there no lawful right to sell the same; that said A—— B—— well knew that said property was the property of the United States, and that said C—— D—— was in the military service of the United States and that he had no right to sell the property aforesaid.

The affiant further states that he believes that said A—— B—— has at divers other times than on the date set forth above, purchased other articles of clothing, to wit: hats, caps, overcoats, uniforms, underclothing, shoes, shirts, etc., etc., from soldiers in the employ of the military service of the United States, contrary to law. The affiant believes that the said article of clothing, to wit, one military overcoat, purchased by said A—— B—— on the said 1st day of December, A. D. 1907, together with the various articles above described, are now contained in the premises of the said A—— B——, and being situate in the City of Leavenworth, in the County Leavenworth, State of Kansas, and within the district above named, and the affiant prays that a search warrant may issue out of this court, authorizing a search of said above-described premises.

P—— Q—— R——.

Sworn to and subscribed before me in my presence this 5th day of December, A. D. 1907.

X—— Y—— Z——,

UNITED STATES COMMISSIONER,
 as aforesaid.

APPENDIX "B."

UNITED STATES OF AMERICA, }
 Eastern District of Kansas, } s.s. Search Warrant.

To M—— N—— O——, United States Marshal for the Eastern District of Kansas, and to his deputies, or to any of them:

WHEREAS, Complaint on oath and in writing has this day been made before me, X—— Y—— Z——, a United States Commissioner for said district, by P—— Q—— R——, alleging that he has reason to believe, and does believe, that one A—— B——, on the 1st day of December, A. D. 1907, purchased a certain article of clothing from C—— D——, a soldier in the military service of the United States, said article of clothing being one military overcoat, property of the United States; that said C—— D—— did not have lawful right to sell same; that said A—— B—— well knew that said C—— D—— was in the military service of the United States and that said property was the property of the United States, and that he had no right to sell same; that said A—— B—— had, at divers other times than on the 1st day of December, A. D. 1907, purchased from divers other persons articles of clothing, to wit; hats, caps, overcoats, uniforms, underclothing, shoes, shirts, etc., from soldiers in the employ of the military service of the United States; and alleging further that said article, to wit, one military overcoat, purchased by said A—— B—— on the 1st day of December, A. D. 1907, together with the various other articles above described, are now contained in the premises of the said A—— B——, situated at Leavenworth, County of Leavenworth, State of Kansas, and within the district above named.

You are therefore hereby commanded, in the name of the President of the United States, to enter said premises, with the necessary and proper assistance, and there diligently to search for the said articles above described, and if the said articles above described, or any part thereof, shall be found on said premises, you are hereby authorized and directed to seize and secure the same for trial.

Given under my hand this 5th day of December, A. D. 1907.

X—— Y—— Z——,

UNITED STATES COMMISSIONER,
 as aforesaid.

APPENDIX "C."

UNITED STATES OF AMERICA, }
 Eastern District of Kansas, } s.s.

Before me, X—— Y—— Z——, a United States Commissioner for the Eastern District of Kansas, personally appeared this day P—— Q—— R——, who, being first duly sworn, deposes and says that on or about the 1st day of December, A. D. 1907, at Leavenworth, in the County of Leavenworth, State of Kansas, in said district, A—— B——, in violation of Section 5438 of the Revised Statutes of the United States, did unlawfully then and there purchase from one C—— D——, a soldier employed in the military service of the United States of America, a certain article of military clothing, to wit, one military overcoat, said C—— D—— not having the lawful right to sell the same; said A—— B—— then and there well knowing that said C—— D—— was then and there a soldier in the military service of the United States, and then and there well knowing that said article of clothing, to wit, one military overcoat, so purchased by him, the said A—— B—— from the said C—— D—— was not the property of the said C—— D——, but that said property was then and there the property of the United States of America, and the said A—— B—— then and there well knowing that the said C—— D—— did not have the lawful right to sell to him, the said C—— D——, the aforesaid property, to wit, one military overcoat, contrary to the form of the statute in such cases made and provided, and against the peace and dignity of the United States of America.

Deponent further says that he has reason to believe, and does believe, that E—— F—— and G—— H—— are material witnesses to the subject matter of this complaint.

P—— Q—— R——.

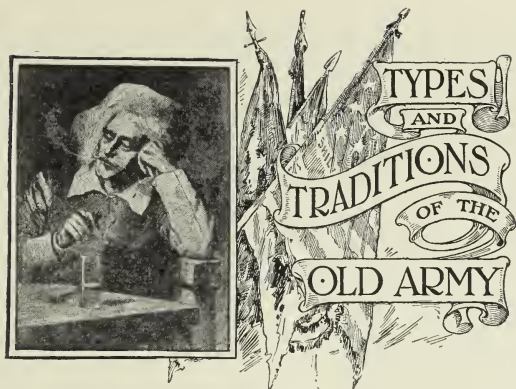
Sworn to before me and subscribed in my presence this 5th day of December, A. D. 1907.

X—— Y—— Z——,
 UNITED STATES COMMISSIONER,
 as aforesaid.



THE MCKINLEY MEMORIAL AT WILMINGTON, DEL.

SCULPTOR, NELLY, WILMINGTON, DEL.



THE MCKINLEY MEMORIAL—BRANDYWINE PARK,
WILMINGTON, DEL.

BY BRIGADIER-GENERAL J. H. WILSON, U. S. ARMY.

THE battle of Antietam was fought September 17, 1862, forty-six years ago.

The Twenty-third Ohio Volunteer Infantry took part in that battle. Its colonel and almost its oldest man was Rutherford B. Hayes, while one of the youngest men of its rank and file was its commissary sergeant, William McKinley. Each in time became President of the United States. No other regiment that took part in the war enjoyed such a distinction.

As a memento of McKinley's untimely death at the hands of an assassin the people of Wilmington, Delaware, resolved to erect a suitable but modest memorial to his character and worth.

After careful consideration of various plans by various artists and sculptors the Committee having the work in charge employed James E. Kelly, Esq., a distinguished sculptor of New York City to design and erect a suitable monument in granite and bronze, and that monument is now in position. The sculptor chosen is a man of experience and notable success. Among his most celebrated works are the battle monument at Monmouth and the equestrian statue of Fitz John Porter at Portland, Me. He has also designed and is preparing to erect a colossal group in bronze showing the defense of New Haven by students of Yale College from the British in the War of 1812.

The subject chosen for the work at Wilmington is an incident in the life of Sergeant McKinley at the battle of Antietam.

It will be remembered that young McKinley enlisted as a private soldier in Company "C" of the Twenty-third Ohio Volunteer Infantry. The records of the War Department show that he was then 18 years of

age and 5 feet 6¼ inches high, but there is reason to believe that he was not so old. He was doubtless entered upon the records and became an enlisted soldier with the consent of his parents at the minimum age allowed by law at that time. Those who knew him then say he was slender and delicate in appearance but so bright and active that he was selected to serve as commissary sergeant of the regiment. As such he accompanied it throughout the Antietam campaign, and as a commissioned officer served till the end of the war for the Union.

From a statement made by Gen. J. L. Botsford, of Youngstown, Ohio, who was quartermaster of the regiment and took part in the campaign and battle of Antietam, it appears that McKinley was at that time with the commissary supplies two miles in rear of the fighting line. At that stage of the war in all battles, whether large or small, there were numerous stragglers who easily found their way back to where the commissary wagons were parked. This was the case at Antietam, and Sergeant McKinley conceived and put into execution the idea of using some of the stragglers from his own regiment to make coffee and carry it to the boys at the front, and it was nearly dark when tremendous cheering arose from the left of the regiment.

As it had been having heavy fighting right up to this time, the division commander, General Scammon, sent Botsford to find out the cause of the cheering, which he soon ascertained to be for McKinley and his hot coffee. You can readily imagine the rousing welcome that youngster received from both the officers and men of his regiment.

Botsford adds in substance, that Sergeant McKinley left his post of security in the rear and drove into the middle of a bloody battle with an army wagon and a team of army mules. It needs nothing more to show the character and determination of McKinley, who was a mere boy at the time. He loaded up two wagons with supplies, but the mules of one were disabled, and although he was ordered back time and again he pushed on to the front. As he gave a cup of hot coffee and a piece of hard tack to one soldier who had been shot, his comrade gratefully called out: "God bless the lad," and McKinley afterwards declared that that blessing had repaid him over and over again for the exertion and danger which he faced in performing his duty on that eventful day.

The result of this thoughtful act on the part of Sergeant McKinley was to inspire the fighting line with renewed courage, and when later an order came for a final charge, they rushed to the attack with increased vigor and determination.

Colonel Hayes reported the circumstances of this case to Governor Tod, who in turn directed McKinley's promotion to second lieutenant, and the commission was issued accordingly.

The sculptor has fittingly portrayed in monumental brass this altruistic incident and the picture which correctly gives every item of uniform and equipment, including the rifle, the wagon and even the army mule, will re-

main for all time to testify, not only to the heroism displayed on the field of battle, but to the humanity and benevolence which remained to the end of his days the most striking characteristics of McKinley, whether, as captain, major, congressman, governor or president. It was these qualities which made him on his death bed ask that no harm or violence should be done to the poor wretch who had inflicted upon him the wound which was to end his earthly career.

The medallion was taken from a photograph by Gutekunst, a copy of which was presented by the President to a friend, as the best and most satisfactory profile picture ever made of him.

It was said by Napoleon that every French soldier carried in his knapsack his marshall's baton. It may be more truthfully said in this great and free Republic that every native-born boy carries about his personality the possibility of his becoming President. If McKinley's career teaches anything, it teaches this inspiring lesson.

The memorial of granite and bronze speaks for itself.

It is composed of a monolithic slab of white granite, 10 feet high by 6 feet wide and 1 foot thick, standing on a granite pedestal and backed against a large mass of granite in place on the hill side and flanked on either side by a rustic granite retaining wall, leaving an oblong circular space at the base which will be floored with paving slabs or concrete. The retaining wall has on either side a granite seat for visitors. The white granite slab contains a bronze picture in low relief of the scene just described—the fighting line on the left, Sergeant McKinley with a camp bucket and cup in the center, wounded men on the right and left and the army wagon, team and men carrying boxes of hard tack on the extreme right. This bronze is surmounted by an open space on which is inscribed the various positions reached by McKinley until he became President. The whole is surmounted by a bronze medallion in profile as mentioned above. The site is in the midst of growing forest trees, hickory and oak, and when covered with growing vines will be most picturesque.



GENERAL STUART AND THE BATTLE OF GETTYSBURG.

THE following communication from Colonel Mosby, which has not, we understand, previously appeared in print, sheds some light upon the much-debated question as to the effect of Stuart's absence with the larger part of his command from the Army of Northern Virginia, during the period June 24-July 3, 1863.

To this letter is appended a facsimile of General Stuart's letter of instructions to the officer commanding the cavalry force left with the Confederate Army, during his (Stuart's) absence. The original is in the possession of the Editor of THE JOURNAL.

Washington, D. C., January 27, 1906.

Judge James Keith,
Richmond, Va.

Dear Judge:

I have seen with great pleasure that you have been re-elected to the Court of Appeals. It recalls the day in March, 1870, when you were nominated to be a circuit judge. The caucus was in session at the Capitol in Richmond. I was waiting to hear from it: When crossing the bridge connecting the Ballard and Exchange I was surprised to meet General R. E. Lee and his daughter—Miss Agnes. I greeted them and went on. Soon afterward I called and spent a few minutes with General Lee at his room. His face was haggard; he did not look like the Apollo I knew in the army.

A book recently published by his son has a letter written by him that day. After leaving General Lee I met General Pickett in the Exchange; I told him that I had just been to see General Lee. He said that he did not want to be alone with General Lee, but that if I would go with him, he would call and pay his respects. So we went together to General Lee's room. The meeting was cold and formal; we only stayed a few minutes. As soon as we got out of the room Pickett spoke very bitterly of General Lee; called him "that old man"—said that he had his division "massacred" at Gettysburg. I replied—"It made you immortal." He had no complaint against Longstreet; in fact spoke very highly of him. I had some doubt then about his assigning the true cause for his feelings toward General Lee.

In May, 1892, I was on a visit to my son at the University of Virginia and took breakfast with Colonel Venable; he spoke of having carried from General Lee the order for Pickett's arrest, and of General Lee's passing Pickett on the retreat from Petersburg and with great indignation saying: "Is that man still with this army?" While we were talking in the parlor, Col. Tom Smith came in with the news of your nomination. He was as much delighted as I was. As you were a product of reconstruction I do not think it as bad as Joe Bryan's paper says it was. It was not long before General Lee, with his daughter, came into the Exchange office; a carriage was waiting to take them to the depot; he was going South on account of his health. I introduced you to General Lee and playfully told him that you had just been elected Judge of "Mosby's Confederacy." He congratulated you, and we walked with him and Miss Agnes to the carriage and helped them in. Pickett did not go with us.

In a few months General Lee had gone "to the other living called the dead." You know that I have a high but rational admiration for General Lee; I am not a blind idolater. To me he is not infallible. The worship of Isis and Osiris was peculiar to the Egyptians only in the names they gave their gods; such credulity is characteristic of this and every age. I think, with all due reverence, that General Lee should be judged by the same measure that other men are. Alexander asked the Athenians to make him a god; I believe they declined:

Weighed in the balance, hero's dust
Is vile as vulgar clay;
Thy scales, Mortality, are just,
To all that pass away.

I sent you a copy of a letter I recently wrote to Col. Gordon McCabe in reference to the light which General Lee's letter-book throws on the Gettysburg campaign. Colonel McCabe permitted me to inspect it after Colonel Cutshaw, one of the committee in charge of it, had refused, and had requested him not to allow me to see it. I was as long seeking it as the Knights of the Round Table were in quest of the Holy Grail.

Presumptions are strong against those who suppress evidence. The book reveals more than the Sybilline leaves, and confirms what I have written about the misrepresentations of certain staff officers as to the cause of the disaster at Gettysburg. Colonel Marshall had possession of this letter-book when he delivered the address on General Lee's birthday on January 19th, 1896, in which he charges the failure of the campaign to Stuart's violation of orders. The book refutes every word he spoke. Longstreet, Colonel Marshall, General Long, Col. Walter Taylor and Fitz Lee had published accounts of the campaign in which they say that the defeat was due to the absence of General Stuart with the cavalry; that until a spy came in on the night of June 28th at Chambersburg and brought the news that Hooker was moving north in pursuit, General Lee thought that Hooker had not crossed the Potomac. This is the worst thing ever said against Lee's capacity as a commander. Ewell had then been more than a week in Pennsylvania; General Lee with Hill and Longstreet had crossed the river several days before. The outposts of the two armies were in sight of each other. There was not a soldier in the army who thought that Hooker would stay in Virginia when the Confederates were foraging in Pennsylvania. The man who thought so ought to have been put in a straight-jacket. In the Richmond Times of March 22, 1896, there was a letter of mine in reply to the attacks on Stuart that had just appeared by Marshall and Longstreet, in which I quoted in full General Lee's letter from Chambersburg to Ewell, who was then at Carlisle, dated 7:30 a. m., June 28th, 1863. It says: "I wrote you *last night* (27th) stating that General Hooker was reported to have crossed the Potomac, and is advancing by way of Middletown, the head of his column being at that point in Frederick County. I directed you in my letter to move your forces to this point." This letter refutes Marshall's, Longstreet's and Long's statements that until the spy came in at night on the 28th General Lee thought that Hooker was still on the south bank of the Potomac. It also refutes what Marshall says about orders having been issued for the army to move on Harrisburg which were recalled after the spy came in with the surprising news that Hooker was moving and not standing still; and that the army was then ordered to Gettysburg and ran "*unexpectedly*" against the enemy. General Lee arrived at Chambersburg on June 27th. Instead of ordering a movement north on Harrisburg, Hill's corps went on seven miles east; and Ewell, whose advance guard was skirmishing near Harrisburg, was immediately ordered to return with his whole corps to Chambersburg. The next day the order was modified and Ewell was directed to Casstown, a village at the eastern end of South Mountain Pass. None of these staff officers mention this letter. I suppose it was because it cannot be reconciled with their statements about General Lee's ignorance of the enemy's movements and his embarrassment on account of the absence of his cavalry. They all make Stuart's disobedience as much the cause

of the defeat as Adam's was of the Fall of Man. I admit that they agree with General Lee's report. That report says that at Chambersburg, on account of news brought by the spy on the night of June 28th, the three army corps were ordered to Gettysburg; and that Heth's division on July 1st, being in advance, ran "unexpectedly" against the enemy. Marshall, Long, Fitz Lee, and Taylor, his biographers, repeat all this. The complaint in the report is the origin of the hostile but senseless criticisms of Stuart. The army was never ordered by General Lee to Gettysburg; Heth did not run "unexpectedly" against the enemy; Hill's and Heth's reports do not say so. Hill says he informed General Lee on June 30th that the enemy occupied the place that day. Heth's division was sent to Cashtown on the 28th. Hill and Heth say that hearing that the enemy were at Gettysburg they left their camps at Cashtown on July 1st and went there to make a reconnaissance. They had no such orders. This is an admission that they did not go there to hold the place. The object of a reconnaissance is to get information. Just sufficient force is applied to compel the enemy to display himself. The attacking force then retires. Hill and Heth fought all day and were beaten. Their own reports show that they were not making a *reconnaissance* but a *raid*; in this way they broke up Lee's plan of campaign. But nobody would suspect it from reading General Lee's report. On the morning of July 1st, when they went on this adventure, General Lee was ten miles away west of the mountain at Greenwood. He was not dreaming of a battle that day. To avoid the effect of my publication of the Chambersburg letter, Longstreet, and Marshall, by his next friend, Colonel Stribling, tried to impeach its authority, because as published in the War Records there is a note—copied "From memory." The letter is in Colonel Venable's handwriting in the letter-book and is attested by his official signature. Colonel Venable's official *teste* is not, however, copied in the published volume. It was for this reason I wanted to inspect the original to ascertain who wrote it and if it comes in the letter book in due sequence of dates and pages. Longstreet and Stribling insisted that the letter was ante-dated and that it was written by a staff officer long afterward and inserted in the letter-book. This was equivalent to a confession that the letter, if authentic, contradicted all that had been said against Stuart and about General Lee's ignorance of the whereabouts of the enemy. No motive has been imputed to Colonel Venable for perpetrating such a forgery. The letter appears in the letter-book on the proper page where it should be according to its date. I have no doubt that General Lee dictated the letter to Venable soon after the original was sent to Ewell. Ewell's and Early's reports show that they received copies of the two Chambersburg letters and obeyed the instructions; which verifies the correctness of the copy in the letter-book. They also show that the letters must have been written on June 28th and 27th. My article in the Times on March 22, 1896, was based on General Lee's contemporary correspondence with Long-

street, Ewell and Stuart. There was no allusion to his report. In my letter, however, transmitting it to Joe Bryan for publication, I said: "Joe! Every word I have written is contradicted by General Lee's report." Soon Longstreet and Stribling came out in replies in which they quoted General Lee's report as conclusive evidence against me and in effect saying the Chambersburg letter is a *forgery*. It did not seem to occur to either that if General Lee's *report* contradicted me his *letter* either contradicted his report or—it is a forgery. As the letter-book was in the possession of their side they ought to have made an exhibit of it—as the *res gestae*—if it sustained their contention. The truth is that I made two written requests to Colonel Marshall through Gen. Marcus Wright to get the very information I recently got by inspecting the book. I got no answer from him. I am a believer in the Baconian philosophy; I like to reason on facts. The mass of Gettysburg literature is "*A ladder leaning on a cloud.*" It is all a romance so far as it relates to the operations of the cavalry. Lee's order of 5 p. m., June 23d, at Berryville, to Stuart, who was in Loudoun, east of the Blue Ridge, to leave two brigades of cavalry with Longstreet in Virginia, and to join Ewell on the Susquehanna with three brigades, is in Col. Walter Taylor's handwriting. It authorized Stuart to cross the Potomac in rear of Hooker's army. It was sent to Stuart through Longstreet. In forwarding it to Stuart, Longstreet wrote to Stuart and urged him to go the very route he took, and to cross the Potomac in the rear of the enemy—which he did. Another of the same date is in General Long's handwriting. He seems to have forgotten all about it when he wrote the memoir of his chief; as did Colonel Taylor. It informs Ewell of the order to Stuart to join him on the Susquehanna. The order required Stuart to cross the Potomac in advance of both armies. A late biographer of Lee admits that the order authorized Stuart to pass around Hooker's rear, but says it required him at the same time to keep between Hooker and Lee, a feat that only a wizard or a witch could perform. General Lee could not, therefore, have expected Stuart to watch and report Hooker's movements on the Potomac. Another letter of the same date and on the same subject is in Colonel Marshall's handwriting. It is remarkable that all of these parties should have forgotten what they wrote to Stuart, and should declare that Lee's orders to him were to march on Longstreet's flank as he moved into Pennsylvania. Stuart left two brigades of cavalry with Longstreet. Lee's biographers don't seem to know it. Another letter from General Lee to Imboden, dated July 1st, at Greenwood, is in Colonel Marshall's handwriting. It informs Imboden, who was in the rear, that for the next few days *his headquarters would be at Cashtown*. Marshall was not a mere machine; he knew the meaning of the letter he wrote. Hill and Heth were then fighting at Gettysburg. General Lee did not know it. That afternoon General Lee crossed the mountain and hearing the firing rode at full speed through Cashtown to the sound of the cannon. *He*

never saw Cashtown again. If he had ordered his army to Gettysburg after the alleged spy came in at Chambersburg, as Marshall and other historians say, he would not have fixed his headquarters eight miles away at Cashtown. Was anything as discreditable to General Lee ever said by an enemy? If Gettysburg was his objective point why does he make an apology for fighting there? He says he delivered a battle there because he was so entangled he could not get away without fighting. It is at least a coincidence that the three staff officers should all forget the very same thing. My theory of the campaign is far more favorable to General Lee as a commander than his own report. The report and his staff say that Gettysburg was the point on which he had ordered the three corps of his army to march for concentration; and that he ran "*unexpectedly*" against the enemy there. Now his *correspondence* shows that on June 27th General Lee knew that Hooker's army had crossed the Potomac and was in Frederick County, Maryland, in pursuit of his. But his *report* says that the spy on the night of June 28th brought him the *first* news of it. Admitting the spy story to be true he ought not to have been surprised to find the enemy at Gettysburg on July 1st—which is not much over a day's march from Frederick. On June 26th Gordon's Brigade with White's cavalry battalion camped at the place; they went on to York the next day. On June 28th Lee's army was much nearer Gettysburg than Meade's; Heth's division was at Cashtown—only eight miles away. Hill's corps might easily have occupied the place that day—or the next day. Meade did not leave Frederick until the 29th. If General Lee was going to Gettysburg why did he stay three days at Chambersburg and keep Hill at Cashtown after the alleged spy came in? General Lee, with Longstreet, did not leave Chambersburg until June 30th. The spy was as much a being of the imagination as Cæsar's ghost that appeared at Phillippi. *No spy came in at Chambersburg.*

The case as stated against General Stuart is (1) disobedience of orders in leaving General Lee, who was with Longstreet, and going to Ewell; (2) that Gettysburg was the point where the concentration was ordered and Stuart was not there; (3) that Heth being in advance ran "*unexpectedly*" against the enemy. In a published letter Heth says that he "*stumbled*" like a blind man into the fight. If Heth had stood still he would not have *stumbled*. His official report states exactly the *reverse*. It says he knew the enemy held Gettysburg but he wanted to see how many there were. The plea to the indictment against Stuart is, (1) he was ordered by General Lee to the Susquehanna; (2) Lee *never* ordered the army to Gettysburg; Stuart was absent on the first day for the same reason that General Lee and Longstreet were absent; (3) Heth did not run "*unexpectedly*" against the enemy. Hill and Heth knew on June 30th that Buford's division was at Gettysburg. But admitting that Stuart's absence was the cause of the defeat, his critics reason in a circle in defending Lee and blaming Stuart. *Stuart was absent obeying Lee's orders.* General Lee is responsible for what Stuart did; he is not re-

sponsible for what Hill and Heth did. If Jackson had been with Lee there would have been no battle at Gettysburg. My theory of the campaign exalts Lee as a commander at the expense of his own report. General Beauregard wrote me that before reading my Belford article (1891) he had always "*condemned*" General Lee for the Gettysburg campaign. His opinion must have been based on Lee's report, or on the accounts of the campaign by his biographers. The late Colonel John M. Patton after reading what I had written on Gettysburg, wrote to me and urged me to write for General Lee the same excuse for his report that Macaulay makes for William of Orange for signing the order for the massacre of Glencoe—that he signed it without reading it. John C. Ropes, of Boston, the historian of the war, wrote me—"Lee's report is all wrong"—as to Stuart and the cavalry.

There is a floating legend that General Lee assumed all the blame of his defeat. He did not; his report—which was written by Colonel Marshall—put all the blame on Stuart, and it was accepted as true. There is not a word in his first report, about Hill and Heth making a *reconnaissance*, or about the two cavalry brigades that were left with him and Longstreet. The report is dated July 31st, 1863, and was immediately published in the Richmond papers. Then began the criticisms of Stuart that almost broke his heart. The next winter I was in Richmond; a number of resolutions of thanks to military organizations had passed Congress. I met Col. Aleck Boteler, a member from Virginia—who had been a volunteer aid to Stuart. He told me that he wanted to offer a similar resolution about Stuart and the cavalry, but was hesitating on account of the prejudice against Stuart. It all came from General Lee's report. The equestrian statue of Stuart soon to be unveiled will be a public acknowledgment of one of the greatest wrongs done a man since Columbus was sent home in chains. I do not expect that anything I may write will make the least impression in Virginia. That would be as hopeless as trying to persuade a High Churchman that Henry the Eighth was not a good husband. It is from no ambition to be a historian that I have dared to tell the truth about Gettysburg. I wish someone else had done it. It is a cup which I wish might have passed from me. I have simply tried to do justice to a man to whom I owe all that I was in the war.

And now I turn to another theme. I have read with much interest a book recently published—*Law and Opinion in England*—by Dicey, an Oxford professor. It discusses problems growing out of combinations of labor and of capital. I wrote Joe Bryan to buy it—read it—and lend it to you. I was surprised to find how far the English and French are in advance of us in dealing with these questions. They can only be solved by treating as obsolete the doctrines of Rousseau, Jefferson, and the economists of the school of *laissez faire*. I have always contended that nobody has discovered a political principle; I mean a universal rule to govern men in all circumstances and conditions. I think that

government is made for man; not man for government. Dicey is the author of another work—The Law of the Constitution. I think if our friend, Joe Bryan, would read the chapter on sovereignty he would never again maintain that the States were sovereign—after the Constitution was adopted. Calhoun's dogmas rest on a false idea of sovereignty. Out of this grew the fallacy of the right of secession—or nullification—which are one and the same thing.

Very truly yours,

(Signed.)

JOHN S. MOSBY.

GENERAL LEE TO GENERAL STUART.

"June 22, 1863.

"MAJOR GENERAL STUART.

General:—I have just received your note of 7.45 this morning to General Longstreet. I judge the efforts of the enemy yesterday were to arrest our progress and ascertain our whereabouts. Perhaps he is satisfied. Do you know where he is and what he is doing? *I fear he will steal a march on us and get across the Potomac before we are aware.** If you find that he is moving northward and that two brigades can guard the Blue Ridge and take care of your rear, you can move with the other three into Maryland and take position on General Ewell's right, place yourself in communication with him, guard his flank, keep him informed of the enemy's movements and collect all the supplies you can for the use of the army. One column of General Ewell's army will probably move toward the Susquehanna by the Emmittsburg route, another by Chambersburg. Accounts from last night state that there was no enemy west of Frederick. A cavalry force (about 100) guarded the Monocacy bridge, which was barricaded. You will, of course, take charge of Jenkins' brigade and give necessary instructions."

*Italics mine, J. S. M.

NOTE.—General Stuart's letter of instructions to General Robertson, in *facsimile*, is reproduced on the following pages. [THE EDITOR.]

Confidential.

Adj. Gen. C. W. Div. A. of N. Va.

June 24th 1863. -

General,

Your own and Gen. Jones' Brigades will cover the front of Ashby's and Snickers gaps, - yourself as senior officer being in command.

Your object will be to watch the enemy, deceive him as to our designs, and harass his rear if you find he is retiring. Be always on the alert; let nothing escape your observation, and miss no opportunity which offers to damage the enemy. -

After the enemy has moved beyond your reach, leave sufficient pickets in the mountains, and withdraw to the west side of the Shenandoah, & place a strong and reliable picket to watch the enemy at Harper's Ferry, cross the Potomac, and follow the army keeping in its right and rear.

As long as the enemy remains in your

front, in force, unless otherwise ordered
by Gen. R. E. Lee, St. Gen. Longstreet, or
myself - hold the gaps with a line of
pickets reaching across the Shenandoah
by Charlestown to the Potomac.

If in the contingency mentioned
you withdraw, sweep the valley clear
of what pertains to the army, and
cross the Potomac at the different points
crossed by it. - You will instruct
Gen. Jones from time to time, as the
movements, progress or events may
require, and report anything of impor-
tance to St. Gen. Longstreet with
whose position you will communicate
by relays through Charlestown.

I send instructions for Gen. Jones,
which please read. Avail yourself
of every means in your power to increase
the efficiency of your command, and
keep it up to the highest number possible.

Particular attention will be paid
to showing horses, and to marching
off of the turn-pikes. -

In case of an advance of the enemy
you will offer such resistance as will
be justifiable to check him, &
discomfit his intentions; and if
possible you will prevent him from
gaining possession of the Gaps. -

In case of a move by the enemy upon
Warrenton, you will conduct it
as much as you can, compatible
with previous instructions.

You will have with the two Brigades,
two Batteries of Horse Artillery. -

Very respectfully
your obedt. servt.

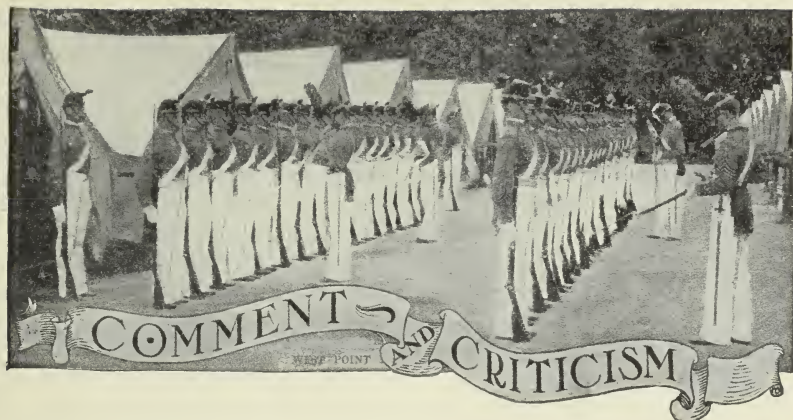
J. E. Stuart

Major Genl
Comd'g. -

Brig. Genl. B. A. Robertson.

Comd'g. Cavalry.

Do not change your present line of
pickets until daylight tomorrow morning
unless compelled to do so. -



"Military Necessities of the U. S. and Best Provisions for Meeting Them."

Major H. C. Groome, National Guard, Pa. (retired).

A paper entitled "Military Necessities of the U. S. and the Best Provisions for Meeting Them," by Maj. Stephen M. Foote, Coast Artillery, was published in the JOURNAL of Sept.-Oct., and some criticisms of its recommendations may be permissible. Major Foote's premises, that a standing army of 100,000 men is all that can be hoped for, that a half million more troops would be needed almost at the outset of a war of any importance, that any method of converting the organized militia of the various states under present conditions into U. S. Volunteers must necessarily be less effective from a standpoint of rapidity than the emergency of modern war demands, and that no well-considered plan has been adopted for quickly recruiting, officering and equipping an adequate volunteer force, are readily admitted. The plan under discussion for remedying these defects in our military system recommends in regard to the organized militia that while every effort should be made by the U. S. Government to promote interest in its various organizations and to increase their military efficiency in time of peace, in time of war these troops shall be used only as "a State Guard, an emergency reserve to the Federal Army, and a source of supply of officers and non-commissioned officers of volunteers." An obvious criticism of the employment of the so-called National Guard in the above three very secondary fields of activity would seem to be:

1. That by the adoption of such a plan one of the principal incentives of its members would be eliminated, namely that of preparing themselves and their organization for effective employment when the country in time of military emergency calls upon its citizens for mili-

tary service, and that consequently these organizations would be stultified in respect to the chief purpose of their existence. In some states, possibly, the "pomp and panoply of war" are the only parts of it for which the citizen-soldiery have any stomach, but I venture to say that in the vast majority of cases the officers and men of the National Guard serve in that body with a distinct expectation of active service in time of war. Such men could, of course, in time of war see service by transfer into the Volunteer regiments as suggested in Major Foote's plan; but why, in that case, should the U. S. Government expend its efforts and the public money to strengthen organizations which, at the moment that justifies their existence from a national standpoint, the government pursuant to another plan proposes to disintegrate?

2. That the National Guard, good or bad, practically includes the total sum of the citizens of the U. S. apart from the regular military establishment who in time of peace show any active interest in military matters and who for this reason are entitled to recognition as members of the specific military organizations to which they have attached themselves and to the efficiency of which they have pledged their best efforts. Many National Guard commands are historical and have honorable records and I take it that *esprit de corps* is always a valuable military asset.

The paper which I am presuming to criticise, after disposing of the organized militia as stated, proceeds to discuss a plan by which a workable system may be established "for raising and setting on foot a half million Volunteers within a few weeks." This plan contemplates the creation of skeleton regiments in time of peace, represented only by their commissioned officers, who shall be chosen from men of military experience if possible. The plan suggests the National Guard regiments as an important source of supply for officers of these skeleton regiments and further indicates a system of instruction for the officers of the proposed Volunteer regiments by which they will be kept in touch with the most advanced military methods. In time of war these regiments are to be immediately recruited, equipped and put into the field.

Some serious objections to this plan are:

1. That the proposed system of training officers is too academic. The officers unless drawn from National Guard organizations would be mere students who would never come in contact with troops and who would suffer from all the disabilities which such lack of experience would entail.

2. That it would be difficult to find National Guard officers, who, in addition to their duties as such, would be willing to assume further military duties as officers of the skeleton Volunteer regiments. Most of the members of the National Guard are so occupied in the affairs of civil life that they often can ill afford the time which they devote to their militia organizations and could not, if they desired to, undertake other military duties. As between such service with troops as the

National Guard organizations afford and service in the suppositious Volunteer regiments which might not in their lifetime be recruited there would be no hesitation in choosing the former.

3. That if the organization of the skeleton Volunteer regiments was successfully effected there would, in my mind, be great difficulty in recruiting them in time of war. To recruit these regiments about 300,000 men must be found to enlist under officers already appointed and with whose appointment the rank and file have had nothing to do. Short of a general conscription law this could never be done. The desire for representation is an American instinct. Three hundred thousand men, and if necessary more, could be readily found to enlist under officers in some measure of their own choosing.

4. That even if such regiments were successfully organized and recruited it seems Utopian to imagine that they would be ready to take the field as moderately effective troops in less than two or three months. They must be taught the use of firearms, and it is quite conceivable that whole regiments so recruited would be absolutely lacking in such knowledge.

The method of mustering National Guard regiments into service as U. S. Volunteers and of equipping them at the outset of the Spanish War was clumsy and stupid, but that was not the fault of the National Guard. The Volunteer regiments raised for the Philippine War were, as Major Foote says, undoubtedly the most satisfactory Volunteer troops which this country has ever produced, but it must be remembered that their number was comparatively small and that they were recruited largely from officers and men who had had the experience of service first in National Guard regiments in their respective states and secondly in such regiments during the Spanish War. We could not therefore hope to reproduce these troops on a large scale after a period of prolonged peace. The organization of the militia as State instead of National forces is undoubtedly most unfortunate, but under the provisions of the Constitution it is inevitable. The recognition of the organized militia as the nucleus of the Volunteer forces in time of war and the wise coöperation of the War Department and the governments of the respective states in time of peace with that end in view would seem to afford the best solution of a difficult problem and one that is certainly of paramount importance.

"Cavalry Expansion."

Captain W. M. Scofield, Ohio N. G.

I believe that the reason that there is so little cavalry in the National Guard is due to the fact that it is rather expensive to maintain to a reasonable degree of efficiency. I undersand that the Government is willing to provide proper equipment, and that most of the states furnish armories, more or less adequate.

The difficulty seems to lie in the matter of furnishing the mounts. My experience leads me to believe that to have hired horses trained to the lowest permissible degree of efficiency, they should be drilled from twenty to thirty times, and be on the picket line in camp from eight to ten days each year. With that for a foundation, two or three weeks hard training ought to bring them in fairly serviceable condition. I estimate the cost of the above yearly training at from \$60 to \$80 per horse.

The annual expense of my troop is about \$7,000 per year, the state allowance being about one-half. Under present conditions, National Guard troops are confined either to horse countries where nearly everyone rides, or to large cities where a sufficient number of young men reside, who are able to pay for the privilege of being cavalrymen.

I feel certain that if the National Government or the states would provide everything pertaining to the cavalry, they could have their pick of the best young men in the country.

I believe that a National Guard reserve would be quite feasible. I know of a number of young men who have served three or more years with the colors and who have found such service irksome after a while, retain all of their keenness for active service, even to the point of re-enlisting for a year at the prospect of something out of the ordinary.

If the War Department should send some of the ambitious young regular cavalry officers to visit National Guard troops for the purpose of stirring them out of their ruts and showing them new vistas, it should have very beneficial results.

I believe that thirty regiments of well trained National Guard cavalry would be well placed insurance. * * *

Captain W. A. Hazle, N. G., South Dakota.

The one thing which has been a drawback in South Dakota has been the item of expense. We can maintain a troop of cavalry at about the same expense during the greater part of the year as a company of infantry, but the law requires and we have found it profitable to hold annual encampments, and at these occasions we find that the transportation, the hire of horses and their subsistence has almost made it prohibitive. There is no lack of horses, and this branch of the service attracts our men far more than any other. We find that it is not necessary to expend any thing for horses or their keep at any other time of the year, but if a man can't attend encampments or maneuvers such as we will have at Fort Riley, they lose interest in the Guard, and that is the only item that has caused this state to muster all of their cavalry out of the service. Of course, when an officer is responsible for such an immense amount of property as is required for a troop, he should have some absolutely secure place to keep it. Captain Cole,

Sixth Cavalry, in his report to the Adjutant General of the Army, after a tour of inspection in South Dakota, said "That the Government should either expend more money upon the militia or not spend any at all." He is absolutely right. Until the Government will agree to pay the expenses of taking men and horses to encampments or maneuvers and taking sufficient interest in the militia organizations to establish armories for them at the different locations, we will never have what we most need, a full regiment of cavalry in each state. You will find that the Western States have more natural horsemen and can secure good horses for this work at less expense than any other part of the United States. It is practically up to the regular cavalry organizations to convince the authorities that we need more cavalry. * * * If the organized militia, as it is supported by the United States, is a profitable adjunct to the regular army, it would appear that they could well afford to take steps to secure the same additional cavalry forces to strengthen the regular cavalry in case they are ever needed.

"Trial by Jury in the Philippines."

Frederic R. Coudert, Esq.

The following letter has been received by Capt. Edward Sigertoos from Mr. Coudert:

"I have received through the courtesy of Messrs. Putnam & Co., publishers, a copy of the October number of the MILITARY SERVICE INSTITUTION JOURNAL, containing your article on the question of whether persons in the military service are entitled to a trial by jury. I examined with great pleasure your interesting and erudite discussion of this complex question and congratulate you upon your presentation of it. I incline to the belief that trial by jury under our Constitution is becoming less of a fundamental right and more and more tending to be considered by our Courts as a mere method of procedure. I enclose you an article in the Yale Law Review written some time ago in which the question was discussed generally, but without particular reference to persons in the military service. Thanking you for your timely presentation of this important topic, I remain."



Virginia Campaign—1864.*

THESE two works—the first by a scholar, student, and thinker,* the other by a soldier,† are discussions of the same campaign and published simultaneously in the same city. It is to be regretted that the first had not appeared early enough to be read by the author of the second before his own had passed beyond his recall; for it is impossible to believe that, in such case, he could have found any *raison d'être* for his own work, and readers would have been spared the perusal of a mass of misinformation, misstatement, and bewildering theory, not often collected in so small a compass.

Captain Vaughan-Sawyer gives a list of authorities consulted, including some good names, and as long as he sticks to these he is safe. It is when, dropping these, he gives us himself, that we begin to worry. As when in his first chapter he dwells on the causes which led to the secession of the Southern States—which causes he very properly states were “various and deep seated”—he becomes fairly amazing. We learn that the Emperor Napoleon was “seriously considering” the proposal to invade and annex Mexico, and that but for the “attitude of uncompromising neutrality of the British Government the States might not be United to-day”; that the great Union Armies were “wandering aimlessly about fighting disconnected battles in immaterial localities and achieving nothing but defeat at the hands of the small but vigorous Armies of the Confederacy; that the successes in the West to the end of 1863 were of little or no value judged by their absence of effect on the military situation in the main theatre”; that “by the end of August, 1862, not a single Federal soldier remained in Virginia,” etc., etc.

Consistency is evidently regarded by the author as the infirmity of great minds, hence he deals in it as little as possible. He tells us that the Union armies “achieved nothing but defeat,” and four pages later that, at Antietam, Lee “barely escaped destruction”; that Bragg was repulsed “by greatly superior forces”; that Lee at Gettysburg was “so severely repulsed that he had to fall back, greatly weakened, into Vir-

**The Campaign in Virginia* (May and June, 1864). By Thomas Miller Maguire, M.A., LL.D., F.R.H.S. London. William Clowes & Sons, L^{td}. 1908.

†*Grant's Campaign in Virginia, 1864* (The Wilderness Campaign). By Captain Vaughan-Sawyer, Indian Army. London. Swan, Sonnenschein & Co., L^{td}. 1908.

ginia," and that Grant moved against Bragg at Chattanooga, "raising the siege and defeating him." The "nothing but defeat" of the Union Armies is ascribed to the fact that President Lincoln "until 1864 insisted on keeping the control of the whole operations in his hands," while a little later is stated "with regard to the Confederate strategy, this was in the hands of President Davis, for Lee was not appointed Commander-in-Chief until 1865, when the cause of the South was already lost." The reader learns that "H. S. Grant" was appointed Lieutenant-General, that Sherman destroyed the "Capital" of the "Cotton States," that Sheridan, after defeating and killing Stuart, rejoined "Lee" a week later "moving by sea," that "Stuart's absence at Baltimore during the battle of Gettysburg contributed largely to Lee's defeat there," that Sigel on May 15th met a "Federal" force "equal to his own and better handled" by which he was defeated with the loss of 800 men, that A. P. Hill's corps was on a certain occasion in danger of capture, being twelve hours behind the rest of the "Federal" army, and that Grant at the Wilderness dispatched "Sherman" to raid the enemy's communications.

From beginning to end the author's Southern bias is so plainly marked on nearly every page as to render him ineligible as an impartial military critic, and the foregoing quotations would hardly commend his work as a text for military students.

The first-named work is written with scholarly insight, impartiality, grasp of the subject, careful adherence to authorities—and with a purpose. Perhaps a brief extract from the author's preface and his closing chapter may serve to show where he stands. In the first he says: "Wisdom is justified in her children, and the worship of Minerva is incompatible with base jealousies and narrow-minded self-conceit. But the career of politics is a very different kind of service, and as in regard to the wars of 1866 and 1870-1 in Europe, so in regard to the Civil War in America, 1861-1865, not one prophecy, not one scheme, not one criticism of party politicians—American, British or French—was justified by events. But hard working and well-informed literary men and responsible soldiers were right in all three cases, both as to prognostication before the combatants opened fire and as to the methods on which success depended during the war."

In his closing chapter we find these thoughtful words: "We hope to complete for ourselves on another occasion this short study of fateful events, on which depended the fortune not only of the United States, but of the whole Anglo-Saxon race. That race on both sides of the Atlantic, less than fifty years after the slaughter of Spotsylvania and Cold Harbor, has reached another crisis in history which must be faced with unremitting energy and lofty courage or the race is doomed. Another President of the United States is contemplating disasters far more terrible than Lincoln feared would have followed the success of the Confederacy. The triumph of plutocrats, the fierce discontent of the toilers, the base and bestial freaks and luxury of the rich, the degradation of marriage, the overcrowding and hopelessness of the poor, the hate of the yellow and black races, are dangers which cannot be overcome merely by the hardihood of warriors, or by the maneuvers of strategists. The ruin of the vote catchers, the elevation of the worker, the 'Bushido' of the scholars, the wholesome nurture of the child, the restoration of maternity, are now the only bases of success. Battleships and ordnance, money and rifles, are mere snares unless we 'sow greatness for prosperity' by working in season and out of

season, all of us, 'classes and masses,' to bring about such healthy and ennobling conditions of life as will enable for the future, Anglo-Saxon *Mothers* to 'give birth to *Men* and *Women*.'

Then, having listened to the warnings and the lessons of all the prophets and sages of all races, we can use the experiences of the greatest of Civil Wars, and be fit, when our generation is called upon to resist internal violence or external aggression, to "speak with our enemies in the gate."

J. N. A.

Rifle Fire and Training.*

ESSENTIALLY a plea for the higher education of the British soldiery in musketry, the author takes up, as well, the entire training of the soldier and cites history at great length to prove that the aim of all training should be to increase the fire efficiency, that all else should be subordinate to this and should be made to dovetail in so as to promote effective fire. He goes back in these citations to our French and Indian and Revolutionary wars to show how the "rough and ready" forest fighting of those days foretold the passing away, to a large extent, of parades, barrack and all formal drills, in order to make room for the more practical field work.

The book is nothing if not critical and though many of these criticisms are so startling as to seem exaggerated, the sincerity and good motives of the author cannot be doubted. He complains bitterly because "no pains is taken to develop the fighting efficiency of the individual soldier, although six years have slipped away * * * (since) the British infantry were cowed and humiliated through finding themselves confronted by more up-to-date fighting men, I see but little evidence of an awakening." Though now, as then, "utterly unfitted and incapable of contending with the exigencies of modern war," nevertheless the British soldier, with his superior natural characteristics and seven year enlistment, "is capable of being made the finest soldier the world has ever seen." The failure of his training to accomplish this result, Major Andrew lays chiefly to a slavish adherence to continental methods, combined with a strange inability on the part of those in authority to profit by the lessons of the past. For these reasons British soldiers, it is alleged, continue to expend their energies on endless repetitions of "kill time" parade drills, or are "dry nursed" over the routine work of the target range until "all hands are wearied to death by the ever-recurring sameness of the work." The statement that "there is little system or method in the training of the soldier" seems to need further explanation in view of the elaborate syllabus promulgated in the British infantry training and the instructions there contained in relation to his training. The contention seems more reasonable that continental methods are not suited to the characteristics of the British soldier, not only causing failure to impose any trust or confidence in his character or intelligence when in the field, but tending to discourage all attempts on the part of the officers to arouse the patriotism, zeal and intelligence of his men, or the development of those higher moral qualities which modern warfare

**Rifle Fire and the Higher Individual Training of the Soldier.* By Major A. W. Andrew, 20th Deccan Horse; Late Chief Instructor at the School of Musketry, Bellary, India. London. W. Thacker & Co., 2 Creed Lane. 1906.

demands. This view of the narrowness of continental methods would seemingly refer more to the training prescribed by the old German and French drill books than to the new, which are, if anything, much less rigid than the British infantry training. The author believes the responsibility for defective methods should be shared by the superior officers of the British army, whom he repeatedly flays for preferring out-of-date cut-and-dried methods rather than bestirring themselves to originate and try out new ones which simulate modern conditions of war.

Range practice is likened to parade ground drill as being only a first step toward efficiency. Its failure to provide efficient riflemen for war is emphasized. Instances are cited of repeated failures of sergeants and marksmen of ten years' service to use their rifles with any effect at unknown distances, at even the shortest ranges, if thrown on their own resources; nor are the musketry schools spared, though the author was late chief instructor at one of them in India, but they are belabored for devoting so much time to mechanical details and for teaching principles that should already be well-known. The absurdly low standards in the army that are set for estimating distances (nearly 30 per cent. of error being allowed the best shots) is, as well, pointed out, and the tendency this has to turn estimating distance drill into a farce as far as practical utility is concerned. In this connection the author points out the absurdity of continuing to train soldiers to judge distances by such means as the appearance of the buttons on the enemy's coats.

The remedies are not so clearly set forth as the defects. In addition to increasing the practical value of estimating distance drill and training the men to observe carefully and use their eyes sensibly and their common sense always, their officers are urged to constantly endeavor to arouse the patriotism, enthusiasm and *esprit* of their men and never fail to explain, in informal talks or lectures, the reason why of everything. Tact, personal influence and *esprit*, rather than punishments, should be sufficient to instill that new higher discipline which is essential along with the full development of all the soldier's faculties. One of the aims of the author is to smooth the road toward field practice so that the difficulties of it need cause no discouragement and there need be no waste of ammunition in field practice. In order to make the change more gradual, a progressive system is urged, by which coaching and all other assistance on the range should be eliminated as quickly as possible together with such striving for a high figure of merit as lessens the practical value of range shooting. Moreover, before firing at unknown distance, a course of preliminary training is advocated similar to that which is now given before firing on the range. The importance of invisibility as well as the necessity for watching the fall of the shot is shown the soldier and he is taught to estimate distance over every variety of ground.

Except, then, for emphasizing the importance of proper instruction suited to the characteristics of the soldiers and for smoothing over the rough places of the transition from the range to the field, there is little in the various schemes worked out in the end of the book that is not contained in the British Musketry Regulations of 1905, though the manner of imparting this information to the soldier is more elaborately set forth. The common objects of both are the well-known ones of insuring "(1) prompt action against targets presented unexpectedly for a short period; (2) to judge ground and observe fire; (3) to make the best use of cover; (4) to recognize the distances at which individual fire will be effective"; and finally to gain the confidence in themselves,

in their officers and in their comrades without which nothing can be accomplished. To realize these results, it hardly seems necessary to explain that long and persistent training, on unknown ground, with unexpected and breakable or disappearing targets, are essential. Provided these can be had, ingenuity and enthusiasm, combined with some knowledge of modern warfare, will do the rest and open up wonderful vistas of new and fascinating field practices. The practical difficulties in the way of obtaining suitable ground on which to hold these might justify my belief that it would be more practical to enlarge and multiply schools for musketry and thus enable the soldiers to obtain therein this advanced training in field practice. But whether or not this view is justified, the author well believes that all, or nearly all, of the three hundred rounds annually allotted to each soldier is needed for this work at unknown distances, instead of the one hundred and twenty-five rounds now allotted for this field practice. Thus he feels that the soldier's practice at known distance should cease as soon as he has once qualified on the range and that all his time and ammunition should be devoted to practice in the field.

Though "Rifle Fire" went to press two years ago, it is still timely and illuminating as well as interesting, in spite, at times, of verbosity in demonstrating self-evident truths. Even though the strangely outspoken and ever-recurring strictures on British methods should be unjust, the author's views are so trenchantly stated that they could serve as food for thought in other countries than the author's own.

T. H. L.

Modern Egypt.*

PROBABLY no man living is as well fitted as Lord Cromer to tell the story of the English occupation of Egypt, which was entered upon at seven o'clock in the morning of July 1, 1882, when Lord Alcester signaled from the *Invincible* to the British fleet lying in the harbor of Alexandria, "Attack the enemy's batteries," which has continued without interruption to the present day, and probably will do so until stout Cromer has been long gathered to his fathers—for after all these years the end is nowhere in sight.

The reader who can spare the time to wade through the eleven hundred and odd pages of Lord Cromer's narrative will at times be struck with the similarity of the English experience in Egypt to that of our own country in the Philippines, and reminded by both of the unfortunate Irishman who thoughtlessly grasping the knob of the electrical machine was embarrassed and rendered uncomfortable by the discovery that he couldn't let go. The English for year after year were busy getting ready to begin to make preparations for evacuating the country. But each succeeding year found them further from the event until at last they ceased even to plan.

So we have about ceased to plan for the Philippines. And Cuba? Well, we evacuated once with a flourish of trumpets only to find ourselves back again in something of a hurry. Now we announce our intention of doing the thing over again next winter. Permanently? Let us so hope!

**Modern Egypt*. By Earl of Cromer (2 vols.). New York. The Macmillan Co. 1908.

Lord Cromer's direct connection with the Egyptian puzzle began with his appointment as Commissioner of the Public Debt of Egypt in the early Spring of 1877 and continued with an interruption of three years (June, 1880-September, 1883) in various capacities until May of 1907. During this time he was "behind the scenes of Egyptian affairs," having access to all documents of the Foreign Offices of both London and Cairo and in close touch with practically everyone taking a leading part in Egyptian affairs.

Beyond the compliment conveyed in his appointment it would have been difficult for Lord Cromer to discover in anything connected therewith a cause for self-congratulation. It would be hard to imagine a more discouraging or nearly hopeless condition of affairs. Ismail Pasha, who succeeded his father, Saïd Pasha, in 1863, had succeeded also by 1876 in increasing the public debt of Egypt from about fifteen millions to four hundred and seventy millions of dollars—an average increase of thirty-five millions yearly. With the exception of about eighty millions spent on the Suez Canal, practically the whole of this borrowed money had been squandered by this young ruler. Egyptian population was divided into two classes—the few who, under the shadow of the throne, lived in luxury through plunder of the many who were taxed to the limit of endurance and with the danger line of starvation never beyond finger touch. Revenue raised through the agency of the three Cs—the Courbash (a strip of hippopotamus hide tapering at the end and used for flogging), the Corvée (compulsory labor) and Corruption, was absorbed by the interest at ruinous rates on the constantly increasing debt. The public administration was honeycombed with bribery and corruption, each inferior purchasing privilege and protection from his superior, and all preying on the wretched and starving Fellaheen, the army undisciplined, demoralized, cowardly and mutinous, and public credit at the lowest ebb and threatening collapse. In latter 1875 and the early spring of 1876 the last spasm of a bankrupt Government occurred in the issue of treasury bills at unheard-of rates of interest. On April 8th of the latter year payment of these was suspended.

Space will not allow our following Lord Cromer through the intricate and devious paths of diplomacy which he trod, headed off at every turn by the jealousies of other interested European powers—France, Germany, Austria, Italy, Russia—each ambitious of having a finger in the Egyptian pie and equally eager to shirk all responsibility, until he at last found himself alone in the unique task of controlling and guiding through the efforts of one alien race, the English, a second alien race, the Turks, by whom they were disliked, in the government of a third race, the Egyptians.

Probably no other man than an Englishman, and an Englishman of Lord Cromer's extended diplomatic experience, exquisite tact, untiring and good-natured energy, united to an iron will, bull-dog tenacity and perseverance and rigid honesty could have succeeded. And the story of his final success, in which no attempt is made to hide or diminish his own mistakes, is told in a frank and straightforward fashion that attracts and convinces, for the results show for themselves. He deceived diplomats by telling the truth, and bewildered Turk and Egyptian through simple financial integrity. Pending and apparently inevitable bankruptcy was avoided, revenues increased to a degree that has placed Egyptian credit on a par with that of the most favored European State, while millions have been judiciously and honestly expended on public improvements and a system of irrigation introduced and carried out by English engineers that is attracting the wonder of the

world and causing Egyptian deserts to blossom as the rose, while throughout the whole course of events taxation has been reduced to a degree undreamed of in the history of the country. The army, twice mutinous and repeatedly proved recreant on field of disaster, was transformed into a creditable fighting machine composed of Fellaheens and blacks with English officers. And the process was unique. One fine morning in September of 1882, six days after the Battle of Tel-el-Kebir, the army was suddenly called on to read, mark, learn and inwardly digest the following laconic decree which appeared in the *Official Journal*:

"We, the Khedive of Egypt, in consideration of the military rebellion, do hereby decree:

"ARTICLE I. The Egyptian Army is dissolved.

"(Signed) MEHEMET TEWFIK."

Tewfik, as an economist, was a great and refreshing contrast to his predecessor. He did not squander even words. Times had changed for Egypt, and Lord Cromer's book tells the result. J. N. A.

The Far East.

THE reading public has become so accustomed to the inundation of current literature that the appearance of a new magazine or the discontinuance of an old one from the news stands is not likely to attract attention.

I am inclined to believe that *The Far East* may prove an exception if it continues as well as the copy which finds its way to our desk. Under the title quoted, "The Far East Publishing Company, of Detroit, Michigan," presents for three dollars per year (thirty cents the copy) an attractive monthly, devoted to Oriental affairs and conditions. The copy before us has articles on Japanese politics, Japanese scenery, agriculture in Manchuria, interesting biography of Oriental notables, several less notable articles, some charming romance, and the notice of latest books on the Far East.

The magazine is superbly illustrated. Indeed, the paper, typography and illustrations are of a character suitable to grace an *édition de luxe*; altogether it is very pleasing.

To persons who know nothing of the Orient and want to know a lot, and to those who know a lot and want to know a little more, *The Far East*, if the sample be a fair one, is commended. H. O. S. H.

The Sword of Dundee.*

MISS Theodora Peck, who a short time ago attracted the attention of the literary public by her historical novel "Hestor of the Grants," has scored another success in her latest work bearing the above title.

Miss Peck has built a delightful tale of romance around the events incidental to that critical period of Scottish history when Bonnie Prince Charlie, the last of the Stuart line, made his futile attempt to regain the

**The Sword of Dundee*. By Theodora Peck. New York. Duffield & Co. 1908.

throne and power of Scotland which had been wrested from his ancestors. The book describes, with graphic accuracy, the historical events of those times, and the authoress has found opportunity to bring in as the principal characters of her story the royal family and chief personages of that period. Many facts of Scotch history are made known in this volume, several of which are new to the general reader. Her ability in combining with these historical facts a romantic tale of love and devotion, as well as loyalty to a hopeless cause, places Miss Peck among historical novelists of greater fame.

The plot of the story is woven in such a clever manner that interest is maintained throughout. For a time the reader is carried through the numerous conflicts of the great uprising, while at the same time our sympathy and admiration is extended to the fair heroine.

The author has shown marked dramatic ability, as well as a fluent use of the Gaelic language in the dialogue, and a strong portrayal of that patriotism and love of country which has made the Scotch respected the world over.

O. F. M.

Doniphan's Expedition.*

THIS work, written primarily for the glory of the great State of Missouri and Missourians, is worthy of a wider interest to Americans of all sections, being a well authenticated record of events, little known to the average reader, but big with importance to the entire nation, not only at the period of their occurrence (1846-7), but for all future time.

Col. Alexander W. Doniphan, the commander of the Expedition, was one of the type of men whose deeds, in other countries than ours, have been since the days of Agamemnon the subject of poetry, heroic epic and song. In the United States it is safe to say his name is less known than that of the man whose fame rests on a foundation of dollars gathered through operations in oil or steel, or of one of the insatiate money getters of Wall Street.

At the outbreak of the Mexican War Colonel Doniphan was requested by the Governor of Missouri to assist in raising a regiment of volunteers, in which he enlisted as private, and was at once elected Colonel, of the First Missouri Mounted Volunteers. The regiment formed a portion of the column known as "The Army of the West," commanded by Col. (later Gen.) Stephen W. Kearny, and with this army, or alone and detached from the main column, marched from Fort Leavenworth to Sante Fé, thence on to the Navajo Country, and later to and through the State of Chihuahua, fighting numerous battles en route, and later plunging into the unknown country between Chihuahua and Saltillo, and again to Matamoras, whence, at the close of the war what remained of the command, was sent by sea to New Orleans and up the river to St. Louis for muster-out.

The route of this expedition, covering thirteen months of time and thirty-five miles of territory and hostile Mexican State, lay through great solitude of torrid, barren and waterless desert, and through and across snow-clad mountain range. Summer sun and winter storm alike found the weary men, often barefoot, without pay and usually without

Doniphan's Expedition: Conquest of New Mexico and California. By William E. Connolly. Published by the Author. (Topeka.) 1907.

food, save what the country afforded and what they captured from the enemy. Ragged, hungry and apparently forgotten by their country, they fought and defeated, over and again, double their number of better fed and better armed Mexican troops, and stormed formidable works held by thrice their strength and commanded by some of the most experienced generals of the Mexican Army. Alone and disappointed in promised assistance, but deterred by no obstacle and faltering at nothing, the slender, half-starved column invaded and conquered the States of Chihuahua and Durango, and at the Pass of the Sacramento, with less than 900 men, charged with the irresistible fury of one of their own Missouri cyclones, a strong position held by 4000 Mexican Regulars and a dozen pieces of artillery. So secure had these been in their own strength and that of their position that they had laid in a supply of ropes with which to bind their Yankee prisoners, and the surrounding hills were covered with inhabitants of the neighboring city of Chihuahua, who had been invited to witness the destruction and capture of the Americans. This expedition under Colonel Doniphan is likened by William Cullen Bryant to that of Zenophon against Persia before the Christian Era, the story of which has survived the ravages of 2000 years. The story of Doniphan and his heroic band should be familiar to every American school boy. J. N. A.

The Citizen's Part in Government.

SCARCELY less prominent in public affairs than the President for the past few years has been Mr. Elihu Root, at present Secretary of State. Perhaps no other American is more competent than he to discuss the attributes of citizenship and its relation to Government.

Our Government is so little felt by the people, and yet so dependent upon the popular voice that it is especially important that the individual keep himself informed upon public questions and take seriously each the part he is to play in the Government.

Last year Mr. Root delivered at Yale University a series of lectures which have recently appeared in book form under the title "The Citizen's Part in Government," from the press of Charles Scribners' Sons. The subject is treated in the masterful manner to be expected from such a source, under four heads:

1. The task inherited or assumed by members of the governing body in a democracy.
2. The functions of political parties as agencies of the governing body.
3. The duties of the citizen as a member of a political party.
4. The grounds for encouragement.

The fundamental duty of citizenship in a republican Government is the intelligent exercise of the elective franchise, of which Mr. Root says:

"Of course, voting is a fundamental and essential part of the qualified citizen's duty to the Government of his country. The man who does not think it worth while to exercise his right to vote for public officers, and on such public questions as are submitted to the voters, is strangely ignorant of the real basis of all the prosperity that he has or hopes for and of the real duty which rests upon him

as a matter of elementary morals; while the man who will not take the trouble to vote is a poor-spirited fellow, willing to live on the labors of others and to shirk the honorable obligation to do his share in return."

The little volume is well printed on excellent paper and merits careful reading by every person who is interested in human liberty and ought to be a text-book in every college and university. H. O. S. H.

Northwestern Fights and Fighters.*

UNDER the above title, Mr. Cyrus Townsend Brady brings out a sort of Sunday newspaper scrapbook rehash of a few of the conflicts between the army and the Indians during the last half century or so.

The work is made up almost entirely of letters and comments of army officers and others, which might be useful historical matter if it were properly segregated and collated but the volume contains little if any new matter, and the text in its present form is neither sufficiently full and connected to be historical nor exciting enough to be sensational.

The reader will, however, gain from it some knowledge of the part played by the army in wresting our great Western country from the savage and making it a habitable home of civilized industry. So even if in "Northwestern Fights and Fighters" be found scant literary merit the author's appreciation of the army, to which the book testifies, makes us kind in our reception of his work. H. O. S. H.

Airships Past and Present.†

AS far back as history and tradition reach the minds of men have been dealing with the theoretical subtleties of aerial navigation, and the inherent desire of man to dominate all nature has manifested itself in his constant efforts "to fly." It is over a century since the invention of the gas-inflated balloon, capable of sustaining considerable weight and floating with it through the air. This device, while novel and entertaining, is of little practical use, but so many were the difficulties to be overcome that little or no improvement upon this crude device of the Montgolfières was made until within the last decade, since which time perhaps no other problem has received more attention and created more widespread interest than that of the navigation of the air.

In a volume entitled "Airships Past and Present," Capt. A. Hildebrant, Instructor in the Prussian Balloon Corps, gives a comprehensive, detailed and attractive history of the efforts to make aerial navigation a practical success.

The text deals with all types of airships and contains considerable scientific information as to their construction, management and difficulties to surmount which would seem to be of value to all aviators.

There are chapters devoted to the use of balloons for military pur-

**Northwestern Fights and Fighters.* By Cyrus Townsend Brady. (New York) McClure Co., 1907.

†*Airships Past and Present.* By A. Hildebrant, Captain and Instructor Prussian Balloon Corps. (New York, D. Van Nostrand Co.) 1908.

poses, meteorology and photography; also one on the use of carrier pigeons, the latter apparently having but little place in such a work, as the use of carrier pigeons in connection with balloons does not differ in any marked degree from their use otherwise.

The book is printed in large, clear type on good paper, well bound, and so profusely illustrated that the illustrations without the text would constitute a graphic history of the world's progress in aerial navigation, which at the present time is so rapid that the recent achievements made the book far behind the times before it left the printer.

H. O. S. H.

The "Journal of the American Army."*

THE *United Service Gazette* (London) of Sept. 24 says: It is always a pleasure to read this journal of the American Army, it being invariably replete with the most interesting matter, dealing with a variety of subjects which never fail to claim attention. "The Military Necessities of the United States, and the best provisions for meeting them," is an example of this, and deservedly occupies the place of honor in the present number. "The Readjustment of Relative Rank" bothered us at one time, but the granting of substantive rank to the departments settled our difficulties in this respect. A useful and educative paper on "How best to instruct officers of our Army in Tactics," shows great strength and ability, and marks the writer as a close student of the tactics practised in the various armies of the world. "Soldiers' Clothing," and "Small Arms Ammunition Supply," also deserve special mention.

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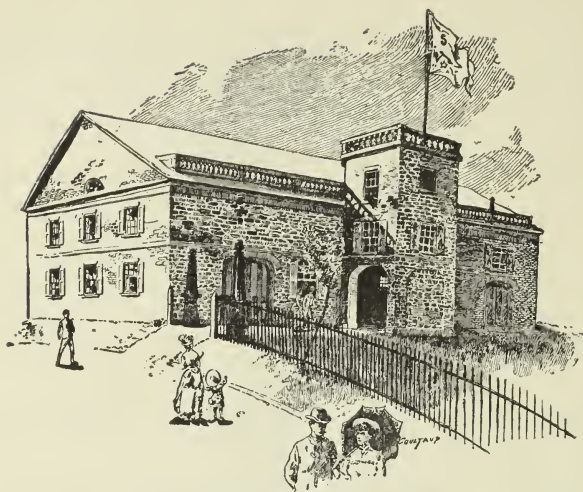
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- The Battle of Gettysburg.* By Frank Aretas Haskell, First Lieutenant Sixth Wisconsin Infantry. Published under the auspices of the Commandery State of Massachusetts, M. O. L. L. (Boston), 1908.
- Report of the Board of Managers of the National Home for Disabled Volunteer Soldiers.* (Washington), Government Printing Office, 1908.
- Lectures of the Statutory Provisions Relating to Government Contracts,* delivered before the Engineer School, U. S. Army, Washington Barracks, D. C. By John Mason Brown, LL.B., March, 1908. (Washington Barracks, D. C.), 1908.
- Morgan's Cavalry.* By Basil Duke. (New York and Washington), The Neale Publishing Co., 1906.
- The Tragedy of Russia in Pacific Asia.* By Frederick McCornick, 2 Volumes. (New York), The Outing Publishing Co., 1907.
- Annual Report of the Commandant Mounted Service School* for the year ending August 31, 1908. (Fort Riley, Kas.), 1908.
- Notes on Field Engineering* from the Diary of an Engineer. Translated from the Russian in the Military Infantry Division, General Staff. (Washington Barracks, D. C.), 1908.
- The Reconnaissance Map of Cuba, 1906-7.* By Lieut. Julian L. Schley, Corps of Engineers. (Washington Barracks, D. C.), 1908.
- How to Become a Drill Instructor.* By Sergeant-Major D. Ferguson. The Seaforth Highlanders. (London), Gale & Polden, Ltd., 1908.
- Notes on Staff Rides and Regimental and Tactical Tours for Beginners.* By Major F. E. Fowle, First Bedfordshire Regiment. New and Revised Edition. (London), Gale & Polden, Ltd., 1908.
- Exercising in Bed.* By Sanford Bennett. (San Francisco), The Edward Hilton Co., 1907.
- The Military Law Examiner.* By Lieut.-Col. Sisson C. Pratt, Royal Artillery (retired). Seventh Edition. (London), Gale & Polden, Ltd., 1908.
- Military Law Made Easy.* By Lieut.-Col. S. T. Banning, Late Royal Munster Fusiliers. Fourth Edition. (London), Gale & Polden, Ltd., 1908.
- A Military Primer.* Prepared for the Cadets of the Fourth Class, U. S. Military Academy, by Capt. E. C. Marshall, Fifteenth Cavalry, and Capt. G. S. Simonds, Twenty-second Infantry. (Philadelphia), Electro-Tint Engraving Co., 1908.



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Editor's Bulletin.

Nomina-
tions for
1909.

President
and
Council.

AT a Stated Meeting of the Executive Council, October 14, 1908, the following nominations were made:

President 1909-11—Gen. Alexander S. Webb (late U. S. Army).

Council 1909-15—Col. G. S. Anderson, G. S.; Col. H. L. Harris, C. A. C.; Maj. C. E. Lydecker, N. G. N. Y.; Col. W. S. Patten, Q. M. D.; Lieut.-Col. G. P. Scriven, S. C.; Capt. P. E. Traub, 12th Cavalry; Col. G. N. Whistler, C. A. C.

Seaman
Prize
Essays,
1908.

The following essays have been received in competition for the **Seaman Prizes** for 1908: *Noms de plume*—"Erah," 27, and "Ajax," 10.

Acces-
sions
to
Library.

The Library has received the following publications:

From Capt. A. Huyghé, Ministère de la Guerre de Belgique: "Bulletin de la Presse et de la Bibliographie Militaires," Bruxelles, 1908 (18 nos.). From Col. John P.

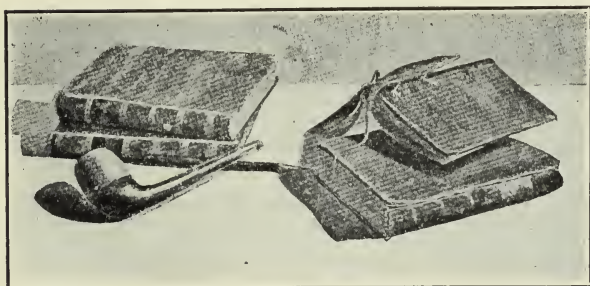
Nicholson, Chairman Gettysburg National Park Commission: "A Blue Print showing the exact location of the small monument marking the position on the battlefield of Gettysburg of each regiment and battery of the Regular Army present in the battle, July 1-3, 1863."

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Member-
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1878
1909

Governor's
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THE JOURNAL

JANUARY-FEBRUARY, 1909



SOME papers recently received for publication in the JOURNAL:

- I. "THE MEDICAL DEPARTMENT OF THE U. S. ARMY: UPON WHAT LINES SHOULD ITS MUCH NEEDED REORGANIZATION BE INSTITUTED?" Seaman (1st) Prize, 1908.
- II. "THE COMPANY NON-COMMISSIONED OFFICER: HOW CAN HIS EFFICIENCY BE BEST PROMOTED AND HIS RE-ENLISTMENT BE SECURED?" Seaman (2d) Prize, 1908.
- III. "SUGGESTIONS FOR THE PHYSICAL TRAINING OF OFFICERS OF THE ACTIVE LIST OF THE ARMY." By Lieut.-Colonel Charles Richard, Medical Corps.
- IV. "UTILIZATION OF THE NIGHT." (Trans.) By Captain Alvin C. Read, 12th U. S. Infantry.
- V. "POST PROFESSIONAL LIBRARIES FOR OFFICERS." By Lieut. G. R. Catts, 10th Infantry.
- VI. "THE CORPS OF MILITARY ENGINEERS AND PIONEERS IN GERMANY." (Trans.) By Major C. H. Hunter, C. A. C.
- VII. "ART IN THE ARMY—A FORECAST." (Ill.) By Brig.-Gen. Joseph P. Farley, U. S. A.
- VIII. TYPES AND TRADITIONS OF THE OLD ARMY. "Papers of Lieut. Z. M. Pike, U. S. A., taken from him by the Spanish Authorities in 1807." (Courtesy of Am. Hist. Review.) "Chancellorsville Revisited." By Mr. A. C. Redwood.

THE PUBLICATION COMMITTEE invites contributions of original papers, translations and comments upon current topics. Attention is called to "Gold Medal," "Seaman," "Short Paper," and "Santiago" prizes described elsewhere.



MEMORANDUM

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Gold Medal—1908.

First Prize—Gold Medal, \$100 and Life Membership.

Second Prize—Silver Medal, Honorable Mention and \$50.

I.—The following Resolution of Council is published for the information of all concerned:

Resolved, That a Prize of a Gold Medal, together with \$100 and a Certificate of Life Membership, be offered annually by THE MILITARY SERVICE INSTITUTION OF THE UNITED STATES for the best essay on a military topic of current interest, the subject to be selected by the Executive Council, and a Silver Medal and \$50 to the first honorably mentioned essay. Should either prize be awarded more than once to the same person, then for each award after the first, a *Clasp* shall be awarded in place of the medal.

1. *Competition to be open to Members and Associate Members only.**

2. Each competitor shall send three copies of his essay in a sealed envelope to reach the Secretary *on or before January 1, 1909*. The essay must be strictly anonymous, but the author shall adopt some *nom de plume* and sign the same to the essay, followed by a figure corresponding with the number of pages of MS.; a sealed envelope bearing the *nom de plume* on the outside and enclosing full name and address, should accompany the essay. This envelope to be opened in the presence of the Council after the decision of the Board of Award has been received.

3. The prize shall be awarded upon the recommendation of a Board consisting of three suitable persons chosen by the Executive Council, who will be requested to designate *the essay deemed worthy of the prize*; and also in their order of merit those deserving of honorable mention.

In determining the essay worthy of the prize, the Board will be requested to consider its professional excellence, usefulness and valuable originality, as of the first importance, and its literary merit as of the second importance. Should members of the Board determine that no essay is worthy of the prize, they may designate one or more essays simply as of honorable mention; in either case, they will be requested to designate one essay as first honorable mention. Should the Board deem proper, it may recommend neither prize nor honorable mention. Should it be so desired, the recommendation of individual members will be considered as confidential by the Council.

4. The successful essay shall be published in the Journal of the Institution, and the essays deemed worthy of honorable mention shall be read before the Institution, or published, at the discretion of the Council, which reserves the right to publish any other essay submitted for a prize, omitting marks of competition.

5. Essays must not exceed ten thousand words, or twenty-five pages of the size and style of the JOURNAL (exclusive of tables), nor contain less than five thousand words.

II.—The Subject selected for the Prize Essay of 1908 is

**“WHAT IS THE CAUSE OF THE RECENT FALLING OFF IN THE
ENLISTED STRENGTH OF THE ARMY AND NAVY, AND WHAT
MEANS SHOULD BE TAKEN TO REMEDY IT?”**

III.—The Board of Award is named as follows:

Rear Admiral CASPAR P. GOODRICH, U.S.N.

Major-General WILLIAM F. DUVALL, U.S.A.

Brig.-General EDWARD S. GODFREY, U.S.A.

GOVERNOR'S ISLAND, N. Y.,

Jan. 1, 1908.

T. F. RODENBOUGH,

Secretary.

*As amended Nov. 13, 1907.

1908

Annual Prizes—1908

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Subject: "The Medical Department of the United States Army: Upon what lines should its much needed Reorganization be instituted?"

Board of Award: Col. P. F. HARVEY, M.D.; Capt. CHARLES LYNCH, M.D., and Capt. N. S. JARVIS, M.D., U. S. A.

Fifty Dollars.

Seaman
Prize
II

(Rules same as Prize I, except that essays shall comprise not less than 2,000 nor more than 5,000 words.)

Subject: "The Company Non-Commissioned Officer: How can his efficiency be best promoted and his re-enlistment be secured?"

Board of Award: Brig.-Gen. J. P. MYRICK, U. S. A.; Lieut.-Col. R. L. HOWZE, U. S. A., and Capt. J. H. MCRAE, Gen. Staff.

THE SANTIAGO PRIZE.

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Santiago
Prize

For "best article upon matters tending to increase the efficiency of the individual soldier, squad, company, troop or battery," published in the JOURNAL M. S. I. during a twelvemonth, ending December 1; awarded upon recommendation of Board selected by President N. S. A. S. C.; competition limited to officers of the Army and National Guard below grade of Lieut.-Colonel; essays not less than 1,000 nor more than 5,000 words.

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Short Paper
Prizes

For best short paper on matters affecting the *Line* of the Army, published in the JOURNAL during twelve months ending May 1.

FRY PRIZE.

Fifty Dollars.

For best short paper on matters affecting the *General Service* not covered by Hancock Prize, published during the twelve months ending Sept. 1.

Essays to be not less than 1,500 nor more than 3,500 words.

NOV.-DEC.

No. CLVI.

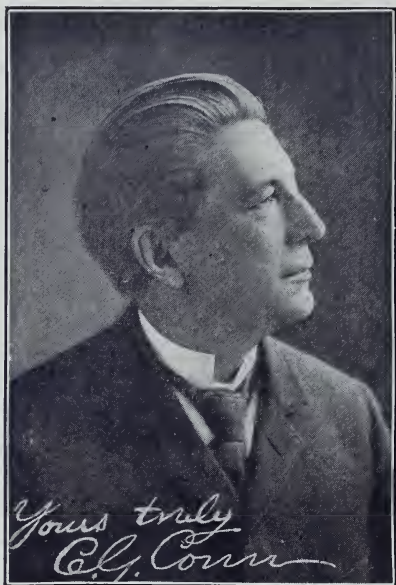
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1878

1908

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GANIZATION ♣ A CHAPLAIN'S WORK
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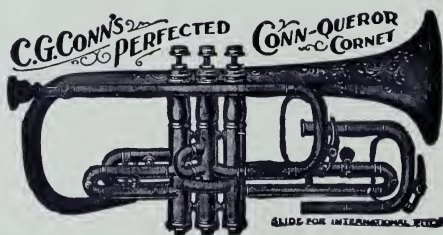
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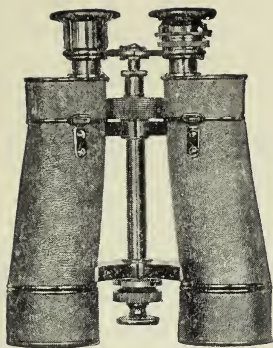
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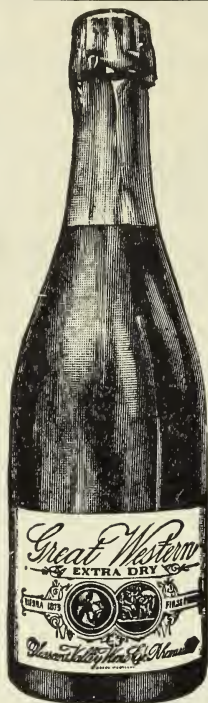
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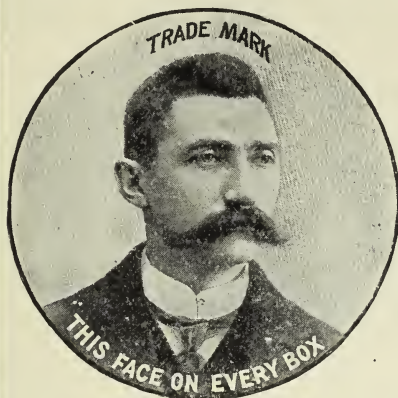
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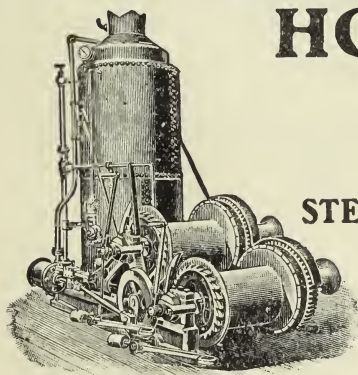
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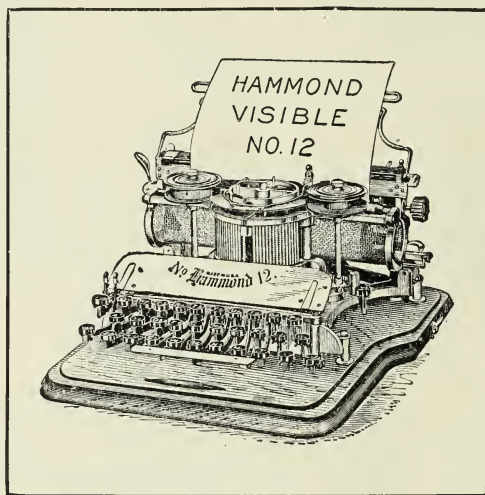
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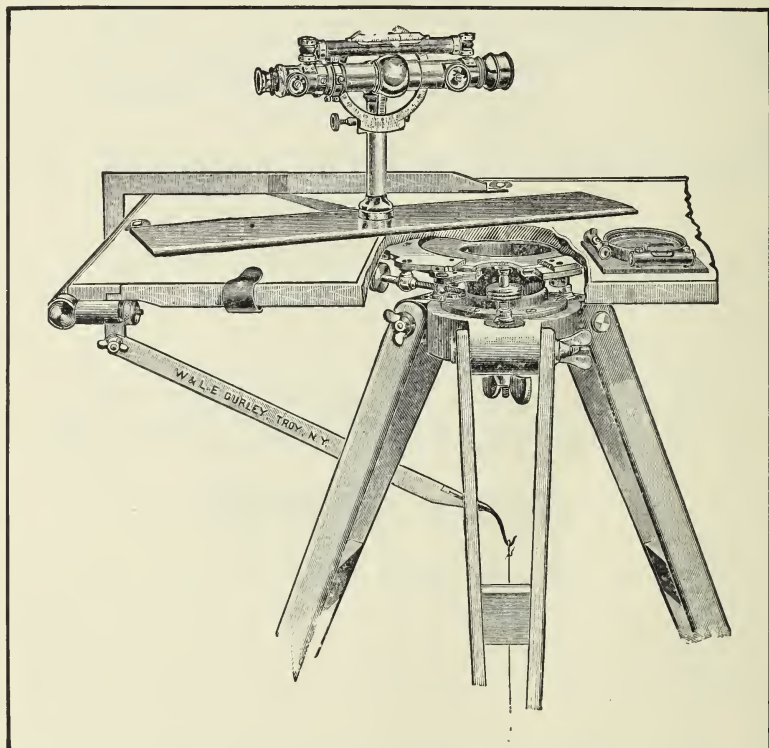
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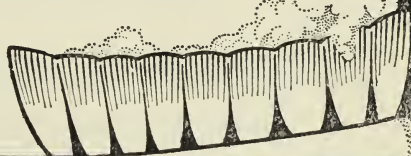
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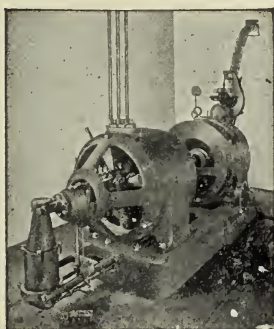
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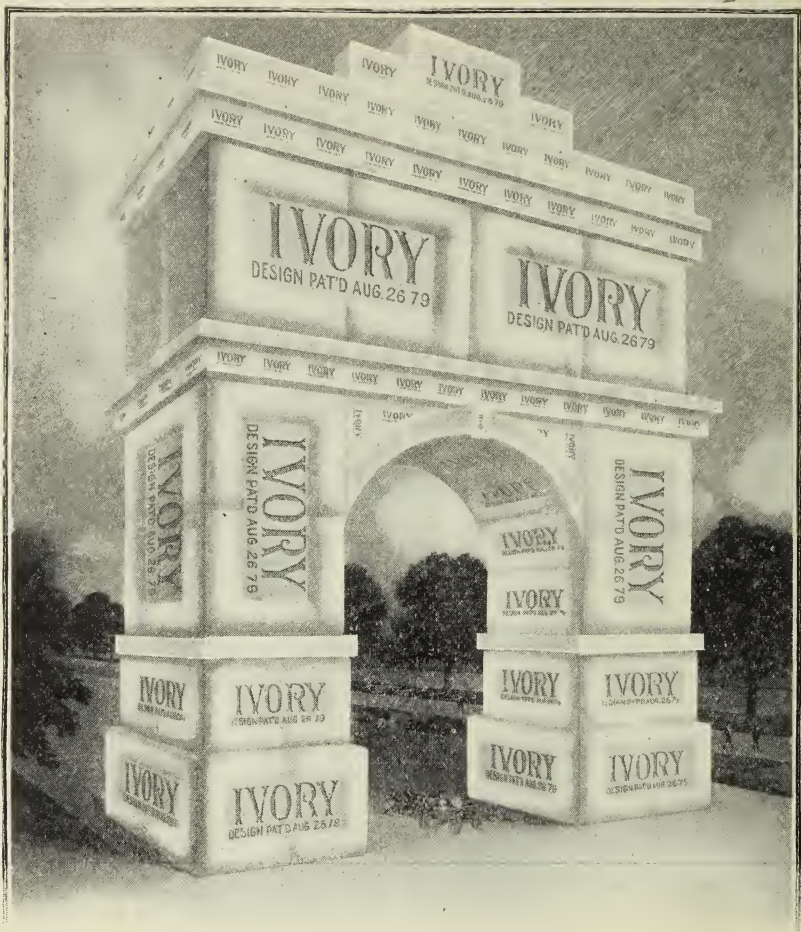
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